Berliner
Astronomisches Jahrbuch

für

1939

164. Jahrgang

Herausgegeben von dem

Astronomischen Rechen-Institut



In Kommission bei
Ferd. Dümmlers Verlag, Berlin SW 68

1937

Astronomisches Rechen-Institut

Berlin-Dahlem, Altensteinstr. 40

Direktor:	Dr. A. Kopff, Universitätsprofessor
Observatoren:	Dr. G. Stracke, Professor
	Dr. O. Kohl, Professor
	Dr. A. Kahrstedt
	Dr. K. Heinemann
	Dr. W. Schaub
Assistenten:	Dr. F. Gondolatsch
	Dr. H. Müller
	Dr. U. Baehr
	Dr. E. Rabe
Hilfsrechner:	R. Hiller
Mitarbeiter:	Dr. J. Peters, Observator u. Professor i. R.
	Dr. H. Nowacki



Vorwort

Vom Jahrgang 1916 an ist der fundamentale Meridian, auf den alle Angaben des Jahrbuchs bezogen sind, der Meridian von Greenwich.

Die Zeit ist vom Jahrgang 1925 an in Welt-Zeit, d. i. Bürgerliche Zeit Greenwich, ausgedrückt (siehe Erläuterungen).

Die Grundlagen des Berliner Astronomischen Jahrbuchs bilden:

Für die Sonne und die großen Planeten:

Die Tafeln von Newcomb und (für Jupiter und Saturn) von Hill, enthalten in:
Astronomical Papers of the American Ephemeris,
Vol. VI, Part I—IV: *Tables of the four inner planets*,
Vol. VII, Part I—IV: *Tables of Jupiter, Saturn, Uranus, Neptune.*

Für Pluto die Elemente von E. C. Bower. (Näheres siehe Erläuterungen.)

Als Sonnenhalbmesser in der mittleren Entfernung ist 16′ 1″.50 angenommen; dagegen liegt der Berechnung der Finsternisse der von Auwers in A. N., Bd. 128 gegebene Wert 15′ 59″.63 zugrunde.

Für den Mond:

Tables of the Motion of the Moon by Ernest W. Brown.

Der geozentrische Mondhalbmesser $r_{☾}$ ist aus der Äquatorial-Horizontalparallaxe $p_{☾}$ gerechnet nach der Formel

$$r_{☾} = 0.272469\, p_{☾} + 1''.50,$$

für die Finsternisse nach $\sin r_{☾} = 0.272274 \sin p_{☾}$.

Als Neigung des Mondäquators gegen die Ekliptik ist nach F. Hayn (A. N. Bd. 199, 263) angenommen: $J = 1^\circ\, 32'\, 20''$.

Für die Fixsterne:

Neuer Fundamentalkatalog des Berliner Astronomischen Jahrbuchs nach den Grundlagen von A. Auwers, für die Epochen 1875 und 1900 bearbeitet von Dr. J. Peters (Veröffentlichung Nr. 33 des Königlichen Astronomischen Rechen-Instituts).

Zum Übergang auf den „Dritten Fundamentalkatalog des Berliner Astronomischen Jahrbuches" sind auf den Seiten 371* bis 382* die definitiven Verbesserungen des NFK für 1939.5 gegeben.

Die Sterngrößen sind der »Revised Harvard Photometry (Harvard Annals, vol. 50)«, die Sternspektra dem »Henry Draper Catalogue (Harvard Annals, vol. 91—99)« entnommen.

Als Werte der fundamentalen Reduktionsgrößen sind angenommen:

Die Präzessions-Größen nach S. Newcomb (vgl. H. Andoyer, Bull. Astr. **28**, 67)

Die Nutations-Konstante . . . . . 9″21

Die Nutations-Größen nach S. Newcomb (Bull. Astr. **15**, 241)

Die Aberrations-Konstante . . . . 20″47

Die Sonnen-Parallaxe . . . . 8″80

Die Abplattung der Erde . . . 1 : 297

Für die Satelliten:

Die Angaben über die 4 älteren Jupitertrabanten beruhen auf den Tafeln von R. A. Sampson (*Tables of the four great Satellites of Jupiter.* London 1910), die Angaben über die 8 älteren Saturnsatelliten auf den von H. und G. Struve sowie von J. Woltjer ermittelten Werten (Näheres s. Erläuterungen).

In allen Ephemeriden der Sonne, der Planeten und der Fixsterne sind die kurzperiodischen, von der Mondlänge abhängigen Nutationsglieder weggelassen; doch bietet das Jahrbuch die Möglichkeit, auch diese weggelassenen Glieder zu berücksichtigen (s. Erläuterungen).

Der Inhalt des Jahrbuchs hat gegen das Vorjahr keine wesentlichen Änderungen erfahren.

Bezüglich der Zahlengrundlagen sei auf die im Berliner Jahrbuch für 1916 gegebene Darstellung der »Grundbegriffe der Sphärischen Astronomie« hingewiesen.

Ein Teil der Angaben wurde seitens der American Ephemeris and Nautical Almanac, Washington, des Nautical Almanac Office, London, und des Bureau des Longitudes, Paris, zur Verfügung gestellt.

Die Schriftleitung des Astronomischen Jahrbuchs für 1939 lag in den Händen von Prof. Dr. Kohl; an den verschiedenen Arbeiten beteiligten sich außerdem die Herren Dr. Müller, Dr. Baehr und mehrere Hilfsarbeiter.

Astronomisches Rechen-Institut.

Inhalt

Zeit- und Festrechnung 1939

Das Jahr 1939 entspricht dem
Jahr 6652 der Julianischen Periode und dem
Jahr 7447—7448 der Byzantinischen Ära.

Gregorianischer Kalender

Goldene Zahl	2
Epakte	X
Sonnenzirkel	16
Sonntagsbuchstabe	A

Septuagesima	5. Febr.
Aschermittwoch	22. Febr.
I. Quatember	1. März
Ostersonntag	9. April
Himmelfahrt	18. Mai
Pfingstsonntag	28. Mai
II. Quatember	31. Mai
III. Quatember	20. Sept.
I. Advent	3. Dez.
IV. Quatember	20. Dez.

Dimensionen der Erde

a) Nach Bessel (1841)

Große Halbachse	$a = 6\,377\,397.155$ m	$\log a = 6.804\;6334\;637$
Kleine Halbachse	$b = 6\,356\,078.963$ m	$\log b = 6.803\;1892\;839$
Abplattung	$\alpha = 1 : 299.152\,8129$	$\log \alpha = 7.524\;1069\;092-10$
Meridianquadrant	$= 10\,000\,855.76$ m	

Die Maßeinheit der Länge ist das legale Meter.

b) Nach Hayford (1909)

Große Halbachse	$a = 6\,378\,388$ m	$\log a = 6.804\;7109\;340$
Kleine Halbachse	$b = 6\,356\,911.946$ m	$\log b = 6.803\;2461\;958$
Abplattung	$\alpha = 1 : 297$	$\log \alpha = 7.527\;2435\;507-10$
Meridianquadrant	$= 10\,002\,288.30$ m	

Die Maßeinheit der Länge ist das internationale Meter.

Ein internationales Meter = 1.000 0133 legales Meter.

Beschleunigung durch die Schwerkraft:

$g = 980.616 - 2.5928 \cos 2\varphi + 0.0068 \cos^2 2\varphi$ cm. gr. sec. (Helmert 1908)

Masse der Erde: $5.974 \cdot 10^{27}$ gr.

Masse der Sonne: $1.983 \cdot 10^{33}$ gr.

Radius der Sonne: 695 300 km.

Mittlere Entfernung Erde—Sonne: 149 504 200 km

Lichtzeit für die mittlere Entfernung Erde—Sonne: 498ˢ72 (mit Lichtgeschwindigkeit 299 774 km/sec.)

Astronomische Konstanten

Allgemeine Präzession . . . . $\psi = 50.''2564 + 0.''000\,222\,t$

Präzession in Rektaszension . . . . $m = 3.^s07234 + 0.^s000\,0186\,t$

Präzession in Deklination . . . . $n = 20.''0468 - 0.''000\,085\,t$

Mittlere Schiefe der Ekliptik . . . . $\varepsilon = 23^\circ\,27'\,8.''26 - 0.''4684\,t$

Länge d. aufsteig. Knotens
d. bewegl. a. d. festen Ekliptik . . . . $\Pi = 173^\circ\,57'\,3.''6 + 32.''862\,t$

Winkel zwischen fester u. bewegl. Ekliptik . . . $\pi = 0.''4711 - 0.''000\,007\,t$

Länge des tropischen Jahres . . . . . . $365.^d242\,198\,79 - 0.^d000\,000\,0614\,t$
„ „ siderischen „ . . . . . . $365.256\,360\,42 + 0.000\,000\,0011\,t$
„ „ anomalistischen „ . . . . . . $365.259\,641\,34 + 0.000\,000\,0304\,t$
„ „ julianischen „ 365.25

t = Zeit seit 1900 in julianischen Jahren

Länge des synodischen Monats . . . . $29.^d530\,588$
„ „ tropischen „ . . . . $27.321\,582$
„ „ siderischen „ . . . . $27.321\,661$
„ „ anomalistischen „ . . . . $27.554\,550$

Länge des mittleren Sonnentages $= 24^h\,3^m\,56.^s555$ Sternzeit $= 1.002\,737\,91$ Sterntag

Länge des mittl. Sterntages $= 23^h\,56^m\,4.^s091$ mittl. Zeit $= 0.997\,269\,57$ mittl. Sonnentag

Äquatoreal-Horizontalparallaxe des Mondes . . . . $57'\,2.''70$
Gravitationskonstante nach Gauß $k = 0.017\,202\,099 = 3548.''18761$
$\log k = 8.235\,581\,44{-}10$ $\log k'' = 3.550\,006\,57$

1 Lichtjahr $= 63\,275$ Astr. Einh. $= 0.3068$ Parsek $= 9.460 \cdot 10^{12}$ km
1 Parsek $= 206\,264.806$ Astr. Einh. $= 3.2598$ Lichtjahre $= 30.84 \cdot 10^{12}$ km

Elemente der Planetenbahnen für 1939 Jan. 0, 0^h Welt-Zeit

	Ω	i	$\tilde{\omega}$	e
	°	°	°	
Merkur	47.608	7.004	76.506	0.205 622
Venus	76.131	3.394	130.713	0.006 802
Erde	—	—	101.891	0.016 735
Mars	49.087	1.850	334.936	0.093 349
Jupiter	99.837	1.307	13.349	0.048 399
Saturn	113.131	2.491	91.862	0.055 757
Uranus	73.672	0.773	172.127	0.046 334
Neptun	131.110	1.776	47.283	0.009 000
Pluto	109.633	17.144	223.175	0.248 644

	a	L	$n_{sid.}$	$P_{sid.}$	
		°	°	a	d
Merkur	0.387 099	147.951	4.092 34	0	87.9693
Venus	0.723 331	123.257	1.602 13	0	224.7008
Erde	1.000 000	98.764	0.985 61	1	0.0142
Mars	1.523 688	198.355	0.524 03	1	321.7375
Jupiter	5.202 561	342.103	0.083 09	11	314.925
Saturn	9.554 747	23.691	0.033 46	29	167.21
Uranus	19.218 14	51.830	0.011 73	84	8.11
Neptun	30.109 57	170.206	0.005 98	164	281.6
Pluto	39.517 74	149.633	0.003 97	248	157

Merkur bis Mars nach Newcomb, Jupiter bis Neptun nach Leverrier und Gaillot, Pluto nach Bower
Für Pluto sind baryzentrische Elemente bezogen auf Ekliptik und mittleres Äquinoktium 1950.0 gegeben

Astronomische Zeichen und Abkürzungen

Bezeichnung der Wochentage

☉ Sonntag
☾ Montag
♂ Dienstag
☿ Mittwoch
♃ Donnerstag
♀ Freitag
♄ Sonnabend

Adspekten

☌ Konjunktion
□ Quadratur
☍ Opposition

Mondphasen

● Neumond
☽ Erstes Viertel
○ Vollmond
☾ Letztes Viertel

☊ Aufsteigender } Knoten
☋ Absteigender } Knoten

Zeichen

des Tierkreises und der Himmelskörper

♈ Widder . . .	0 Grad	
♉ Stier	30 »	☉ Sonne
♊ Zwillinge . . .	60 »	☾ Mond
♋ Krebs	90 »	☿ Merkur
♌ Löwe	120 »	♀ Venus
♍ Jungfrau . . .	150 »	♁ Erde
♎ Waage . . .	180 »	♂ Mars
♏ Skorpion . . .	210 »	♃ Jupiter
♐ Schütze . . .	240 »	♄ Saturn
♑ Steinbock . .	270 »	♅ Uranus
♒ Wassermann .	300 »	♆ Neptun
♓ Fische	330 »	

Sonne, Mond, Große Planeten

1939



Sonne 1939

Tag	Wochentag	0ʰ Welt-Zeit: Zeitgleichung (Wahre Zeit *minus* Mittlere Zeit) m s	Diff. s	Scheinbare Rektaszension h m s	Diff. m s	Scheinbare Deklination ° ′ ″	Diff. ′ ″	Halbe Durchgangs-Dauer St.-Zt. s	Halbmesser ′ ″
1939									
Jan. 0	Sa	− 2 37.56	28.79	18 37 40.47	4 25.34	−23 9 45.5	4 12.7	71.12	16 17.85
1	St	3 6.35	28.48	18 42 5.81	4 25.04	23 5 32.8	4 40.3	71.08	16 17.87
2	Mo	3 34.83	28.15	18 46 30.85	4 24.71	23 0 52.5	5 7.8	71.04	16 17.88
3	Di	4 2.98	27.79	18 50 55.56	4 24.34	22 55 44.7	5 35.2	71.00	16 17.89
4	Mi	4 30.77	27.39	18 55 19.90	4 23.96	22 50 9.5	6 2.5	70.95	16 17.90
5	Do	4 58.16	26.99	18 59 43.86	4 23.54	22 44 7.0	6 29.5	70.90	16 17.89
6	Fr	− 5 25.15	26.55	19 4 7.40	4 23.11	−22 37 37.5	6 56.4	70.84	16 17.88
7	Sa	5 51.70	26.09	19 8 30.51	4 22.65	22 30 41.1	7 23.0	70.78	16 17.86
8	St	6 17.79	25.61	19 12 53.16	4 22.16	22 23 18.1	7 49.5	70.72	16 17.84
9	Mo	6 43.40	25.11	19 17 15.32	4 21.67	22 15 28.6	8 15.8	70.65	16 17.81
10	Di	7 8.51	24.59	19 21 36.99	4 21.14	22 7 12.8	8 41.9	70.57	16 17.78
11	Mi	7 33.10	24.04	19 25 58.13	4 20.60	21 58 30.9	9 7.6	70.50	16 17.73
12	Do	− 7 57.14	23.47	19 30 18.73	4 20.03	−21 49 23.3	9 33.1	70.42	16 17.68
13	Fr	8 20.61	22.88	19 34 38.76	4 19.44	21 39 50.2	9 58.4	70.33	16 17.63
14	Sa	8 43.49	22.27	19 38 58.20	4 18.83	21 29 51.8	10 23.4	70.25	16 17.57
15	St	9 5.76	21.64	19 43 17.03	4 18.19	21 19 28.4	10 48.0	70.16	16 17.51
16	Mo	9 27.40	20.98	19 47 35.22	4 17.54	21 8 40.4	11 12.3	70.07	16 17.44
17	Di	9 48.38	20.29	19 51 52.76	4 16.85	20 57 28.1	11 36.4	69.98	16 17.38
18	Mi	−10 8.67	19.60	19 56 9.61	4 16.15	−20 45 51.7	12 0.0	69.88	16 17.30
19	Do	10 28.27	18.89	20 0 25.76	4 15.44	20 33 51.7	12 23.4	69.79	16 17.22
20	Fr	10 47.16	18.15	20 4 41.20	4 14.71	20 21 28.3	12 46.4	69.69	16 17.14
21	Sa	11 5.31	17.40	20 8 55.91	4 13.96	20 8 41.9	13 9.1	69.59	16 17.05
22	St	11 22.71	16.63	20 13 9.87	4 13.19	19 55 32.8	13 31.3	69.48	16 16.96
23	Mo	11 39.34	15.86	20 17 23.06	4 12.41	19 42 1.5	13 53.3	69.38	16 16.87
24	Di	−11 55.20	15.06	20 21 35.47	4 11.62	−19 28 8.2	14 14.7	69.27	16 16.77
25	Mi	12 10.26	14.26	20 25 47.09	4 10.81	19 13 53.5	14 35.9	69.16	16 16.67
26	Do	12 24.52	13.44	20 29 57.90	4 10.00	18 59 17.6	14 56.7	69.05	16 16.57
27	Fr	12 37.96	12.62	20 34 7.90	4 9.18	18 44 20.9	15 17.1	68.93	16 16.46
28	Sa	12 50.58	11.80	20 38 17.08	4 8.35	18 29 3.8	15 37.0	68.82	16 16.35
29	St	13 2.38	10.96	20 42 25.43	4 7.51	18 13 26.8	15 56.7	68.71	16 16.23
30	Mo	−13 13.34	10.12	20 46 32.94	4 6.68	−17 57 30.1	16 15.8	68.60	16 16.11
31	Di	13 23.46	9.29	20 50 39.62	4 5.84	17 41 14.3	16 34.7	68.48	16 15.98
Febr. 1	Mi	13 32.75	8.45	20 54 45.46	4 5.01	17 24 39.6	16 53.1	68.37	16 15.85
2	Do	13 41.20	7.62	20 58 50.47	4 4.17	17 7 46.5	17 11.1	68.25	16 15.71
3	Fr	13 48.82	6.79	21 2 54.64	4 3.35	16 50 35.4	17 28.8	68.13	16 15.57
4	Sa	13 55.61	5.97	21 6 57.99	4 2.53	16 33 6.6	17 46.1	68.02	16 15.42
5	St	−14 1.58	5.17	21 11 0.52	4 1.72	−16 15 20.5	18 3.0	67.90	16 15.26
6	Mo	14 6.75	4.36	21 15 2.24	4 0.92	15 57 17.5	18 19.5	67.79	16 15.11
7	Di	14 11.11	3.57	21 19 3.16	4 0.13	15 38 58.0	18 35.5	67.68	16 14.95
8	Mi	14 14.68	2.79	21 23 3.29	3 59.34	15 20 22.5	18 51.3	67.56	16 14.77
9	Do	14 17.47	2.02	21 27 2.63	3 58.57	15 1 31.2	19 6.5	67.45	16 14.60
10	Fr	−14 19.49		21 31 1.20		−14 42 24.7		67.34	16 14.42

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1939.0 Länge		Mittleres Äquinoktium 1939.0 Breite	log R		Aufgang in {+50° Breite, 0h Länge}	Untergang in {+50° Breite, 0h Länge}
1939	2429	h m s	in 0.001 s		° ′ ″		in 0.″01			h m	h m
Jan. 0	263.5	6 35 2.908	+780	−14	278 39 20.2	61′ 8.″8	+30	9.992 6776	92	7 59	16 7
1	264.5	6 38 59.465	783	−16	279 40 29.0	61 8.7	+17	9.992 6684	66	7 59	16 8
2	265.5	6 42 56.023	785	−15	280 41 37.7	61 8.5	+ 3	9.992 6618	40	7 59	16 9
3	266.5	6 46 52.580	787	−12	281 42 46.2	61 8.2	− 9	9.992 6578	12	7 59	16 10
4	267.5	6 50 49.137	789	− 6	282 43 54.4	61 8.1	−20	9.992 6566	17	7 58	16 11
5	268.5	6 54 45.695	791	+ 1	283 45 2.5	61 8.0	−29	9.992 6583	47	7 58	16 12
6	269.5	6 58 42.252	+793	+ 7	284 46 10.5	61 7.9	−37	9.992 6630	75	7 58	16 13
7	270.5	7 2 38.809	795	+12	285 47 18.4	61 7.8	−42	9.992 6705	105	7 58	16 14
8	271.5	7 6 35.366	796	+14	286 48 26.2	61 7.8	−43	9.992 6810	134	7 57	16 16
9	272.5	7 10 31.924	798	+12	287 49 34.0	61 7.8	−42	9.992 6944	161	7 57	16 17
10	273.5	7 14 28.481	800	+ 8	288 50 41.8	61 7.9	−37	9.992 7105	187	7 56	16 19
11	274.5	7 18 25.038	802	+ 3	289 51 49.7	61 7.8	−30	9.992 7292	213	7 56	16 20
12	275.5	7 22 21.595	+803	− 2	290 52 57.5	61 7.8	−21	9.992 7505	235	7 55	16 21
13	276.5	7 26 18.152	805	− 5	291 54 5.3	61 7.8	−10	9.992 7740	256	7 55	16 23
14	277.5	7 30 14.708	806	− 7	292 55 13.1	61 7.6	+ 3	9.992 7996	278	7 54	16 24
15	278.5	7 34 11.265	807	− 6	293 56 20.7	61 7.5	+16	9.992 8274	296	7 54	16 26
16	279.5	7 38 7.822	809	− 4	294 57 28.2	61 7.2	+29	9.992 8570	314	7 53	16 27
17	280.5	7 42 4.378	810	0	295 58 35.4	61 6.8	+41	9.992 8884	332	7 52	16 28
18	281.5	7 46 0.935	+811	+ 3	296 59 42.2	61 6.4	+51	9.992 9216	349	7 51	16 30
19	282.5	7 49 57.491	812	+ 7	298 0 48.6	61 5.8	+59	9.992 9565	366	7 50	16 31
20	283.5	7 53 54.048	813	+ 9	299 1 54.4	61 5.3	+65	9.992 9931	382	7 49	16 33
21	284.5	7 57 50.604	814	+ 9	300 2 59.7	61 4.6	+68	9.993 0313	398	7 48	16 34
22	285.5	8 1 47.160	815	+ 9	301 4 4.3	61 3.8	+69	9.993 0711	414	7 47	16 36
23	286.5	8 5 43.716	816	+ 7	302 5 8.1	61 3.0	+67	9.993 1125	431	7 46	16 38
24	287.5	8 9 40.272	+816	+ 3	303 6 11.1	61 2.1	+62	9.993 1556	447	7 45	16 39
25	288.5	8 13 36.828	817	− 2	304 7 13.2	61 1.0	+55	9.993 2003	464	7 44	16 41
26	289.5	8 17 33.384	817	− 7	305 8 14.2	61 0.0	+46	9.993 2467	482	7 43	16 43
27	290.5	8 21 29.940	818	−12	306 9 14.2	60 58.8	+36	9.993 2949	500	7 42	16 45
28	291.5	8 25 26.495	818	−15	307 10 13.0	60 57.6	+24	9.993 3449	520	7 41	16 46
29	292.5	8 29 23.051	818	−16	308 11 10.6	60 56.4	+11	9.993 3969	541	7 39	16 48
30	293.5	8 33 19.606	+818	−14	309 12 7.0	60 55.1	− 2	9.993 4510	563	7 38	16 49
31	294.5	8 37 16.161	818	− 9	310 13 2.1	60 53.9	−14	9.993 5073	586	7 37	16 51
Febr. 1	295.5	8 41 12.717	818	− 3	311 13 56.0	60 52.5	−25	9.993 5659	610	7 36	16 53
2	296.5	8 45 9.272	818	+ 4	312 14 48.5	60 51.3	−34	9.993 6269	635	7 34	16 55
3	297.5	8 49 5.827	817	+ 9	313 15 39.8	60 50.1	−40	9.993 6904	661	7 33	16 56
4	298.5	8 53 2.382	817	+12	314 16 29.9	60 49.0	−43	9.993 7565	686	7 31	16 58
5	299.5	8 56 58.936	+816	+12	315 17 18.9	60 47.8	−42	9.993 8251	712	7 30	17 0
6	300.5	9 0 55.491	816	+ 9	316 18 6.7	60 46.7	−37	9.993 8963	738	7 28	17 2
7	301.5	9 4 52.046	815	+ 5	317 18 53.4	60 45.8	−30	9.993 9701	761	7 27	17 3
8	302.5	9 8 48.600	814	0	318 19 39.2	60 44.7	−20	9.994 0462	782	7 25	17 5
9	303.5	9 12 45.155	813	− 5	319 20 23.9	60 43.7	− 9	9.994 1244	803	7 24	17 6
10	304.5	9 16 41.709	+812	− 7	320 21 7.6		+ 3	9.994 2047		7 22	17 8

Tag	Wochentag	0ʰ Welt-Zeit Zeitgleichung Wahre Zeit *minus* Mittlere Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1939		m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Febr. 10	Fr	−14 19.49	1.24	21 31 1.20	3 57.80	−14 42 24.7	19 21.4	67.34	16 14.42
11	Sa	14 20.73	0.49	21 34 59.00	3 57.04	14 23 3.3	19 35.9	67.23	16 14.23
12	St	14 21.22	0.26	21 38 56.04	3 56.29	14 3 27.4	19 49.9	67.12	16 14.04
13	Mo	14 20.96	1.01	21 42 52.33	3 55.55	13 43 37.5	20 3.5	67.01	16 13.85
14	Di	14 19.95	1.74	21 46 47.88	3 54.81	13 23 34.0	20 16.7	66.90	16 13.65
15	Mi	14 18.21	2.46	21 50 42.69	3 54.09	13 3 17.3	20 29.4	66.80	16 13.46
16	Do	−14 15.75	3.18	21 54 36.78	3 53.37	−12 42 47.9	20 41.8	66.69	16 13.26
17	Fr	14 12.57	3.89	21 58 30.15	3 52.67	12 22 6.1	20 53.6	66.59	16 13.05
18	Sa	14 8.68	4.59	22 2 22.82	3 51.97	12 1 12.5	21 5.2	66.49	16 12.85
19	St	14 4.09	5.27	22 6 14.79	3 51.28	11 40 7.3	21 16.1	66.39	16 12.64
20	Mo	13 58.82	5.95	22 10 6.07	3 50.60	11 18 51.2	21 26.7	66.29	16 12.43
21	Di	13 52.87	6.61	22 13 56.67	3 49.94	10 57 24.5	21 36.9	66.19	16 12.22
22	Mi	−13 46.26	7.27	22 17 46.61	3 49.29	−10 35 47.6	21 46.7	66.09	16 12.00
23	Do	13 38.99	7.91	22 21 35.90	3 48.64	10 14 0.9	21 56.0	66.00	16 11.79
24	Fr	13 31.08	8.53	22 25 24.54	3 48.02	9 52 4.9	22 4.8	65.91	16 11.57
25	Sa	13 22.55	9.15	22 29 12.56	3 47.41	9 30 0.1	22 13.4	65.82	16 11.35
26	St	13 13.40	9.75	22 32 59.97	3 46.80	9 7 46.7	22 21.4	65.74	16 11.13
27	Mo	13 3.65	10.33	22 36 46.77	3 46.22	8 45 25.3	22 29.2	65.65	16 10.90
28	Di	−12 53.32	10.90	22 40 32.99	3 45.65	− 8 22 56.1	22 36.4	65.57	16 10.67
März 1	Mi	12 42.42	11.45	22 44 18.64	3 45.11	8 0 19.7	22 43.3	65.49	16 10.45
2	Do	12 30.97	11.97	22 48 3.75	3 44.58	7 37 36.4	22 49.8	65.42	16 10.21
3	Fr	12 19.00	12.48	22 51 48.33	3 44.08	7 14 46.6	22 55.9	65.35	16 9.97
4	Sa	12 6.52	12.96	22 55 32.41	3 43.59	6 51 50.7	23 1.7	65.28	16 9.74
5	St	11 53.56	13.42	22 59 16.00	3 43.13	6 28 49.0	23 7.1	65.21	16 9.49
6	Mo	−11 40.14	13.85	23 2 59.13	3 42.69	− 6 5 41.9	23 12.2	65.14	16 9.24
7	Di	11 26.29	14.27	23 6 41.82	3 42.29	5 42 29.7	23 16.8	65.08	16 8.99
8	Mi	11 12.02	14.65	23 10 24.11	3 41.90	5 19 12.9	23 21.1	65.02	16 8.73
9	Do	10 57.37	15.02	23 14 6.01	3 41.53	4 55 51.8	23 25.1	64.96	16 8.48
10	Fr	10 42.35	15.36	23 17 47.54	3 41.20	4 32 26.7	23 28.6	64.91	16 8.21
11	Sa	10 26.99	15.68	23 21 28.74	3 40.87	4 8 58.1	23 31.8	64.85	16 7.95
12	St	−10 11.31	15.99	23 25 9.61	3 40.57	− 3 45 26.3	23 34.6	64.80	16 7.69
13	Mo	9 55.32	16.26	23 28 50.18	3 40.29	3 21 51.7	23 37.1	64.76	16 7.42
14	Di	9 39.06	16.52	23 32 30.47	3 40.03	2 58 14.6	23 39.1	64.72	16 7.15
15	Mi	9 22.54	16.76	23 36 10.50	3 39.78	2 34 35.5	23 40.7	64.68	16 6.88
16	Do	9 5.78	16.99	23 39 50.28	3 39.57	2 10 54.8	23 42.0	64.64	16 6.61
17	Fr	8 48.79	17.19	23 43 29.85	3 39.36	1 47 12.8	23 43.0	64.61	16 6.33
18	Sa	− 8 31.60	17.38	23 47 9.21	3 39.17	− 1 23 29.8	23 43.4	64.58	16 6.06
19	St	8 14.22	17.55	23 50 48.38	3 39.01	0 59 46.4	23 43.6	64.55	16 5.79
20	Mo	7 56.67	17.69	23 54 27.39	3 38.86	0 36 2.8	23 43.3	64.53	16 5.51
21	Di	7 38.98	17.83	23 58 6.25	3 38.72	− 0 12 19.5	23 42.7	64.51	16 5.24
22	Mi	7 21.15	17.95	0 1 44.97	3 38.60	+ 0 11 23.2	23 41.7	64.49	16 4.97
23	Do	− 7 3.20		0 5 23.57		+ 0 35 4.9		64.47	16 4.70

Tag	0h Welt-Zeit Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	kurzp. Gl.	Mittleres Äquinoktium 1939.0 Länge		Breite	log R		Auf-gang in {+50° Breite, 0h Länge	Unter-gang
1939	2429	h m s	in 0.001 s		° ′ ″	′ ″	in 0.01″			h m	h m
Febr. 10	304.5	9 16 41.709	+812	− 7	320 21 7.6	60 42.6	+ 3	9.994 2047	823	7 22	17 8
11	305.5	9 20 38.263	811	− 7	321 21 50.2	60 41.6	+16	9.994 2870	840	7 20	17 10
12	306.5	9 24 34.817	810	− 4	322 22 31.8	60 40.5	+29	9.994 3710	855	7 18	17 12
13	307.5	9 28 31.371	808	− 1	323 23 12.3	60 39.4	+41	9.994 4565	870	7 17	17 13
14	308.5	9 32 27.925	807	+ 3	324 23 51.7	60 38.2	+51	9.994 5435	884	7 15	17 15
15	309.5	9 36 24.479	805	+ 7	325 24 29.9	60 36.9	+59	9.994 6319	896	7 13	17 17
16	310.5	9 40 21.033	+803	+ 9	326 25 6.8	60 35.5	+64	9.994 7215	908	7 11	17 19
17	311.5	9 44 17.586	802	+10	327 25 42.3	60 34.2	+67	9.994 8123	918	7 9	17 20
18	312.5	9 48 14.140	800	+10	328 26 16.5	60 32.7	+68	9.994 9041	928	7 8	17 22
19	313.5	9 52 10.693	798	+ 8	329 26 49.2	60 31.2	+67	9.994 9969	938	7 6	17 23
20	314.5	9 56 7.247	796	+ 5	330 27 20.4	60 29.6	+62	9.995 0907	947	7 4	17 25
21	315.5	10 0 3.800	794	0	331 27 50.0	60 27.8	+55	9.995 1854	956	7 2	17 27
22	316.5	10 4 0.353	+792	− 5	332 28 17.8	60 26.1	+45	9.995 2810	965	7 0	17 29
23	317.5	10 7 56.906	790	−10	333 28 43.9	60 24.3	+34	9.995 3775	974	6 58	17 30
24	318.5	10 11 53.459	787	−13	334 29 8.2	60 22.4	+22	9.995 4749	984	6 56	17 32
25	319.5	10 15 50.012	785	−15	335 29 30.6	60 20.5	+ 9	9.995 5733	994	6 54	17 34
26	320.5	10 19 46.565	782	−14	336 29 51.1	60 18.4	− 4	9.995 6727	1005	6 52	17 36
27	321.5	10 23 43.118	780	−11	337 30 9.5	60 16.4	−17	9.995 7732	1018	6 50	17 37
28	322.5	10 27 39.671	+777	− 5	338 30 25.9	60 14.3	−27	9.995 8750	1031	6 48	17 39
März 1	323.5	10 31 36.223	774	+ 1	339 30 40.2	60 12.3	−36	9.995 9781	1046	6 46	17 40
2	324.5	10 35 32.776	772	+ 6	340 30 52.5	60 10.2	−43	9.996 0827	1061	6 44	17 42
3	325.5	10 39 29.329	769	+10	341 31 2.7	60 8.2	−46	9.996 1888	1077	6 42	17 44
4	326.5	10 43 25.881	766	+11	342 31 10.9	60 6.2	−45	9.996 2965	1094	6 40	17 45
5	327.5	10 47 22.433	763	+ 9	343 31 17.1	60 4.4	−41	9.996 4059	1112	6 37	17 47
6	328.5	10 51 18.986	+760	+ 5	344 31 21.5	60 2.5	−34	9.996 5171	1128	6 35	17 48
7	329.5	10 55 15.538	757	0	345 31 24.0	60 0.7	−25	9.996 6299	1144	6 33	17 50
8	330.5	10 59 12.090	754	− 4	346 31 24.7	59 59.0	−14	9.996 7443	1159	6 31	17 52
9	331.5	11 3 8.643	751	− 7	347 31 23.7	59 57.3	− 2	9.996 8602	1172	6 29	17 53
10	332.5	11 7 5.195	747	− 8	348 31 21.0	59 55.6	+11	9.996 9774	1184	6 27	17 55
11	333.5	11 11 1.747	744	− 6	349 31 16.6	59 54.0	+24	9.997 0958	1195	6 25	17 56
12	334.5	11 14 58.299	+741	− 2	350 31 10.6	59 52.3	+36	9.997 2153	1203	6 23	17 58
13	335.5	11 18 54.851	738	+ 2	351 31 2.9	59 50.6	+46	9.997 3356	1211	6 21	18 0
14	336.5	11 22 51.403	734	+ 6	352 30 53.5	59 49.0	+54	9.997 4567	1216	6 19	18 1
15	337.5	11 26 47.955	731	+ 9	353 30 42.5	59 47.3	+61	9.997 5783	1221	6 16	18 3
16	338.5	11 30 44.507	728	+11	354 30 29.8	59 45.4	+64	9.997 7004	1224	6 14	18 4
17	339.5	11 34 41.059	724	+11	355 30 15.2	59 43.6	+65	9.997 8228	1226	6 12	18 6
18	340.5	11 38 37.611	+721	+ 9	356 29 58.8	59 41.8	+63	9.997 9454	1227	6 10	18 8
19	341.5	11 42 34.163	717	+ 6	357 29 40.6	59 39.9	+59	9.998 0681	1228	6 8	18 9
20	342.5	11 46 30.715	714	+ 2	358 29 20.5	59 37.9	+52	9.998 1909	1227	6 5	18 11
21	343.5	11 50 27.267	710	− 3	359 28 58.4	59 35.9	+43	9.998 3136	1226	6 3	18 12
22	344.5	11 54 23.819	707	− 8	0 28 34.3	59 33.9	+32	9.998 4362	1224	6 1	18 14
23	345.5	11 58 20.371	+704	−12	1 28 8.2		+20	9.998 5586		5 59	18 16

Tag		Wochentag	0h Welt-Zeit: Zeitgleichung Wahre Zeit *minus* Mittlere Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1939			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
März	23	Do	−7 3.20	18.04	0 5 23.57	3 38.51	+0 35 4.9	23 40.3	64.47	16 4.70
	24	Fr	6 45.16	18.13	0 9 2.08	3 38.42	0 58 45.2	23 38.5	64.46	16 4.42
	25	Sa	6 27.03	18.20	0 12 40.50	3 38.36	1 22 23.7	23 36.4	64.45	16 4.15
	26	St	6 8.83	18.24	0 16 18.86	3 38.31	1 46 0.1	23 33.8	64.44	16 3.89
	27	Mo	5 50.59	18.28	0 19 57.17	3 38.27	2 9 33.9	23 31.1	64.44	16 3.61
	28	Di	5 32.31	18.29	0 23 35.44	3 38.27	2 33 5.0	23 27.8	64.44	16 3.34
	29	Mi	−5 14.02	18.28	0 27 13.71	3 38.27	+2 56 32.8	23 24.2	64.44	16 3.07
	30	Do	4 55.74	18.25	0 30 51.98	3 38.30	3 19 57.0	23 20.3	64.45	16 2.80
	31	Fr	4 37.49	18.20	0 34 30.28	3 38.35	3 43 17.3	23 16.1	64.46	16 2.53
April	1	Sa	4 19.29	18.13	0 38 8.63	3 38.42	4 6 33.4	23 11.5	64.47	16 2.26
	2	St	4 1.16	18.04	0 41 47.05	3 38.52	4 29 44.9	23 6.6	64.48	16 1.98
	3	Mo	3 43.12	17.92	0 45 25.57	3 38.63	4 52 51.5	23 1.3	64.50	16 1.71
	4	Di	−3 25.20	17.77	0 49 4.20	3 38.77	+5 15 52.8	22 55.8	64.52	16 1.43
	5	Mi	3 7.43	17.61	0 52 42.97	3 38.95	5 38 48.6	22 49.9	64.54	16 1.16
	6	Do	2 49.82	17.43	0 56 21.92	3 39.13	6 1 38.5	22 43.7	64.57	16 0.88
	7	Fr	2 32.39	17.21	1 0 1.05	3 39.33	6 24 22.2	22 37.2	64.60	16 0.59
	8	Sa	2 15.18	16.98	1 3 40.38	3 39.57	6 46 59.4	22 30.3	64.63	16 0.31
	9	St	1 58.20	16.74	1 7 19.95	3 39.82	7 9 29.7	22 23.1	64.66	16 0.04
	10	Mo	−1 41.46	16.46	1 10 59.77	3 40.09	+7 31 52.8	22 15.6	64.70	15 59.76
	11	Di	1 25.00	16.18	1 14 39.86	3 40.37	7 54 8.4	22 7.7	64.74	15 59.48
	12	Mi	1 8.82	15.87	1 18 20.23	3 40.68	8 16 16.1	21 59.4	64.78	15 59.20
	13	Do	0 52.95	15.56	1 22 0.91	3 41.00	8 38 15.5	21 50.9	64.82	15 58.93
	14	Fr	0 37.39	15.22	1 25 41.91	3 41.33	9 0 6.4	21 41.9	64.87	15 58.65
	15	Sa	0 22.17	14.87	1 29 23.24	3 41.68	9 21 48.3	21 32.7	64.92	15 58.37
	16	St	−0 7.30	14.51	1 33 4.92	3 42.05	+9 43 21.0	21 23.0	64.97	15 58.09
	17	Mo	+0 7.21	14.13	1 36 46.97	3 42.42	10 4 44.0	21 13.1	65.02	15 57.82
	18	Di	0 21.34	13.75	1 40 29.39	3 42.80	10 25 57.1	21 2.8	65.07	15 57.55
	19	Mi	0 35.09	13.35	1 44 12.19	3 43.21	10 46 59.9	20 52.2	65.12	15 57.29
	20	Do	0 48.44	12.94	1 47 55.40	3 43.61	11 7 52.1	20 41.1	65.18	15 57.03
	21	Fr	1 1.38	12.53	1 51 39.01	3 44.03	11 28 33.2	20 29.8	65.24	15 56.77
	22	Sa	+1 13.91	12.10	1 55 23.04	3 44.45	+11 49 3.0	20 18.0	65.31	15 56.51
	23	St	1 26.01	11.66	1 59 7.49	3 44.89	12 9 21.0	20 6.1	65.37	15 56.25
	24	Mo	1 37.67	11.22	2 2 52.38	3 45.33	12 29 27.1	19 53.6	65.44	15 56.00
	25	Di	1 48.89	10.77	2 6 37.71	3 45.78	12 49 20.7	19 41.0	65.51	15 55.75
	26	Mi	1 59.66	10.31	2 10 23.49	3 46.25	13 9 1.7	19 27.9	65.58	15 55.50
	27	Do	2 9.97	9.84	2 14 9.74	3 46.71	13 28 29.6	19 14.5	65.65	15 55.26
	28	Fr	+2 19.81	9.36	2 17 56.45	3 47.20	+13 47 44.1	19 0.9	65.72	15 55.02
	29	Sa	2 29.17	8.86	2 21 43.65	3 47.69	14 6 45.0	18 46.9	65.80	15 54.78
	30	St	2 38.03	8.36	2 25 31.34	3 48.20	14 25 31.9	18 32.6	65.87	15 54.54
Mai	1	Mo	2 46.39	7.84	2 29 19.54	3 48.71	14 44 4.5	18 17.9	65.95	15 54.30
	2	Di	2 54.23	7.32	2 33 8.25	3 49.24	15 2 22.4	18 3.1	66.02	15 54.06
	3	Mi	+3 1.55		2 36 57.49		+15 20 25.5		66.10	15 53.82

Tag	0h Welt-Zeit: Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1939.0: Länge	Diff.	Breite	log R	Diff.	Aufgang in +50° Breite, 0h Länge	Untergang in +50° Breite, 0h Länge
1939	2429	h m s	in 0.001 s		° ′ ″	′ ″	in 0.01″			h m	h m
März 23	345.5	11 58 20.371	+704	−12	1 28 8.2	59 31.7	+20	9.998 5586	1223	5 59	18 16
24	346.5	12 2 16.922	700	−14	2 27 39.9	59 29.5	+ 6	9.998 6809	1220	5 57	18 17
25	347.5	12 6 13.474	697	−14	3 27 9.4	59 27.3	− 8	9.998 8029	1219	5 54	18 19
26	348.5	12 10 10.026	693	−11	4 26 36.7	59 25.0	−20	9.998 9248	1219	5 52	18 20
27	349.5	12 14 6.578	690	− 7	5 26 1.7	59 22.6	−32	9.999 0467	1219	5 50	18 22
28	350.5	12 18 3.130	686	− 1	6 25 24.3	59 20.2	−42	9.999 1686	1219	5 48	18 24
29	351.5	12 21 59.682	+683	+ 5	7 24 44.5	59 17.9	−49	9.999 2905	1222	5 46	18 25
30	352.5	12 25 56.234	680	+ 9	8 24 2.4	59 15.6	−53	9.999 4127	1226	5 43	18 27
31	353.5	12 29 52.786	676	+10	9 23 18.0	59 13.2	−52	9.999 5353	1229	5 41	18 28
April 1	354.5	12 33 49.338	673	+ 9	10 22 31.2	59 11.0	−49	9.999 6582	1235	5 39	18 30
2	355.5	12 37 45.890	670	+ 6	11 21 42.2	59 8.8	−44	9.999 7817	1241	5 37	18 32
3	356.5	12 41 42.443	666	+ 1	12 20 51.0	59 6.6	−35	9.999 9058	1246	5 35	18 33
4	357.5	12 45 38.995	+663	− 3	13 19 57.6	59 4.5	−23	0.000 0304	1253	5 32	18 35
5	358.5	12 49 35.547	660	− 7	14 19 2.1	59 2.6	−11	0.000 1557	1257	5 30	18 36
6	359.5	12 53 32.099	657	− 8	15 18 4.7	59 0.7	+ 2	0.000 2814	1262	5 28	18 38
7	360.5	12 57 28.651	654	− 7	16 17 5.4	58 58.8	+14	0.000 4076	1265	5 26	18 40
8	361.5	13 1 25.204	651	− 4	17 16 4.2	58 57.0	+28	0.000 5341	1266	5 24	18 41
9	362.5	13 5 21.756	648	0	18 15 1.2	58 55.2	+39	0.000 6607	1266	5 22	18 43
10	363.5	13 9 18.309	+645	+ 4	19 13 56.4	58 53.4	+48	0.000 7873	1266	5 20	18 44
11	364.5	13 13 14.861	642	+ 8	20 12 49.8	58 51.7	+55	0.000 9139	1262	5 18	18 46
12	365.5	13 17 11.414	640	+10	21 11 41.5	58 50.0	+60	0.001 0401	1258	5 16	18 48
13	366.5	13 21 7.966	637	+11	22 10 31.5	58 48.2	+62	0.001 1659	1253	5 14	18 49
14	367.5	13 25 4.519	634	+10	23 9 19.7	58 46.4	+60	0.001 2912	1246	5 12	18 51
15	368.5	13 29 1.072	631	+ 8	24 8 6.1	58 44.7	+56	0.001 4158	1238	5 10	18 52
16	369.5	13 32 57.625	+629	+ 3	25 6 50.8	58 42.9	+49	0.001 5396	1229	5 8	18 54
17	370.5	13 36 54.178	626	− 1	26 5 33.7	58 41.1	+40	0.001 6625	1219	5 6	18 55
18	371.5	13 40 50.731	624	− 6	27 4 14.8	58 39.2	+29	0.001 7844	1207	5 4	18 57
19	372.5	13 44 47.284	622	−10	28 2 54.0	58 37.3	+17	0.001 9051	1196	5 1	18 58
20	373.5	13 48 43.837	620	−13	29 1 31.3	58 35.4	+ 3	0.002 0247	1183	4 59	19 0
21	374.5	13 52 40.390	617	−13	30 0 6.7	58 33.4	−10	0.002 1430	1170	4 57	19 1
22	375.5	13 56 36.943	+615	−11	30 58 40.1	58 31.3	−24	0.002 2600	1158	4 55	19 3
23	376.5	14 0 33.496	613	− 7	31 57 11.4	58 29.2	−37	0.002 3758	1145	4 53	19 4
24	377.5	14 4 30.050	611	− 2	32 55 40.6	58 27.1	−47	0.002 4903	1134	4 52	19 6
25	378.5	14 8 26.603	609	+ 4	33 54 7.7	58 24.9	−55	0.002 6037	1124	4 50	19 7
26	379.5	14 12 23.157	608	+ 9	34 52 32.6	58 22.8	−60	0.002 7161	1113	4 48	19 9
27	380.5	14 16 19.711	606	+11	35 50 55.4	58 20.7	−61	0.002 8274	1105	4 46	19 11
28	381.5	14 20 16.264	+604	+10	36 49 16.1	58 18.5	−59	0.002 9379	1098	4 44	19 12
29	382.5	14 24 12.818	603	+ 7	37 47 34.6	58 16.4	−54	0.003 0477	1091	4 42	19 14
30	383.5	14 28 9.372	601	+ 3	38 45 51.0	58 14.4	−46	0.003 1568	1087	4 40	19 15
Mai 1	384.5	14 32 5.926	600	− 2	39 44 5.4	58 12.5	−34	0.003 2655	1082	4 38	19 17
2	385.5	14 36 2.480	599	− 6	40 42 17.9	58 10.6	−22	0.003 3737	1076	4 36	19 18
3	386.5	14 39 59.034	+597	− 8	41 40 28.5		− 9	0.003 4813		4 35	19 20

Tag	Wochentag	0h Welt-Zeit: Zeitgleichung, Wahre Zeit *minus* Mittlere Zeit (m s)	Diff. (s)	Scheinbare Rektaszension (h m s)	Diff. (m s)	Scheinbare Deklination (° ′ ″)	Diff. (′ ″)	Halbe Durchgangs-Dauer St.-Zt. (s)	Halbmesser (′ ″)
1939									
Mai 3	Mi	+3 1.55	6.77	2 36 57.49	3 49.78	+15 20 25.5	17 47.9	66.10	15 53.82
4	Do	3 8.32	6.23	2 40 47.27	3 50.33	15 38 13.4	17 32.3	66.18	15 53.59
5	Fr	3 14.55	5.66	2 44 37.60	3 50.89	15 55 45.7	17 16.6	66.26	15 53.35
6	Sa	3 20.21	5.10	2 48 28.49	3 51.46	16 13 2.3	17 0.5	66.34	15 53.12
7	St	3 25.31	4.52	2 52 19.95	3 52.03	16 30 2.8	16 44.0	66.43	15 52.88
8	Mo	3 29.83	3.94	2 56 11.98	3 52.62	16 46 46.8	16 27.4	66.51	15 52.65
9	Di	+3 33.77	3.35	3 0 4.60	3 53.20	+17 3 14.2	16 10.3	66.59	15 52.44
10	Mi	3 37.12	2.76	3 3 57.80	3 53.79	17 19 24.5	15 53.0	66.67	15 52.21
11	Do	3 39.88	2.18	3 7 51.59	3 54.38	17 35 17.5	15 35.4	66.75	15 51.98
12	Fr	3 42.06	1.58	3 11 45.97	3 54.97	17 50 52.9	15 17.6	66.83	15 51.76
13	Sa	3 43.64	0.99	3 15 40.94	3 55.57	18 6 10.5	14 59.3	66.92	15 51.54
14	St	3 44.63	0.40	3 19 36.51	3 56.15	18 21 9.8	14 40.8	67.00	15 51.33
15	Mo	+3 45.03	0.19	3 23 32.66	3 56.74	+18 35 50.6	14 22.1	67.08	15 51.12
16	Di	3 44.84	0.76	3 27 29.40	3 57.32	18 50 12.7	14 3.1	67.16	15 50.91
17	Mi	3 44.08	1.34	3 31 26.72	3 57.90	19 4 15.8	13 43.7	67.24	15 50.71
18	Do	3 42.74	1.91	3 35 24.62	3 58.46	19 17 59.5	13 24.1	67.32	15 50.51
19	Fr	3 40.83	2.46	3 39 23.08	3 59.02	19 31 23.6	13 4.1	67.40	15 50.31
20	Sa	3 38.37	3.00	3 43 22.10	3 59.56	19 44 27.7	12 44.1	67.48	15 50.13
21	St	+3 35.37	3.55	3 47 21.66	4 0.10	+19 57 11.8	12 23.6	67.56	15 49.95
22	Mo	3 31.82	4.06	3 51 21.76	4 0.62	20 9 35.4	12 2.9	67.63	15 49.77
23	Di	3 27.76	4.57	3 55 22.38	4 1.13	20 21 38.3	11 42.0	67.71	15 49.59
24	Mi	3 23.19	5.07	3 59 23.51	4 1.62	20 33 20.3	11 20.8	67.78	15 49.42
25	Do	3 18.12	5.56	4 3 25.13	4 2.12	20 44 41.1	10 59.4	67.85	15 49.25
26	Fr	3 12.56	6.04	4 7 27.25	4 2.59	20 55 40.5	10 37.8	67.92	15 49.09
27	Sa	+3 6.52	6.49	4 11 29.84	4 3.05	+21 6 18.3	10 15.9	67.99	15 48.93
28	St	3 0.03	6.95	4 15 32.89	4 3.51	21 16 34.2	9 53.8	68.06	15 48.77
29	Mo	2 53.08	7.40	4 19 36.40	4 3.95	21 26 28.0	9 31.6	68.13	15 48.63
30	Di	2 45.68	7.83	4 23 40.35	4 4.39	21 35 59.6	9 9.2	68.19	15 48.48
31	Mi	2 37.85	8.26	4 27 44.74	4 4.81	21 45 8.8	8 46.5	68.25	15 48.33
Juni 1	Do	2 29.59	8.66	4 31 49.55	4 5.22	21 53 55.3	8 23.6	68.31	15 48.19
2	Fr	+2 20.93	9.07	4 35 54.77	4 5.62	+22 2 18.9	8 0.7	68.37	15 48.04
3	Sa	2 11.86	9.45	4 40 0.39	4 6.01	22 10 19.6	7 37.4	68.43	15 47.90
4	St	2 2.41	9.83	4 44 6.40	4 6.39	22 17 57.0	7 14.1	68.48	15 47.77
5	Mo	1 52.58	10.19	4 48 12.79	4 6.75	22 25 11.1	6 50.6	68.53	15 47.63
6	Di	1 42.39	10.54	4 52 19.54	4 7.09	22 32 1.7	6 26.9	68.58	15 47.50
7	Mi	1 31.85	10.86	4 56 26.63	4 7.42	22 38 28.6	6 3.2	68.63	15 47.37
8	Do	+1 20.99	11.17	5 0 34.05	4 7.72	+22 44 31.8	5 39.2	68.67	15 47.26
9	Fr	1 9.82	11.46	5 4 41.77	4 8.02	22 50 11.0	5 15.2	68.71	15 47.14
10	Sa	0 58.36	11.73	5 8 49.79	4 8.29	22 55 26.2	4 51.0	68.74	15 47.02
11	St	0 46.63	11.98	5 12 58.08	4 8.54	23 0 17.2	4 26.8	68.77	15 46.91
12	Mo	0 34.65	12.21	5 17 6.62	4 8.76	23 4 44.0	4 2.3	68.80	15 46.80
13	Di	+0 22.44		5 21 15.38		+23 8 46.3		68.83	15 46.69

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1939.0 Länge		Breite	log R		Aufgang in +50° Breite 0h Länge	Untergang in +50° Breite 0h Länge
1939	2429	h m s	in 0.001 s		° ′ ″	′ ″	in 0.01″			h m	h m
Mai 3	386.5	14 39 59.034	+597	− 8	41 40 28.5	58 8.8	− 9	0.003 4813	1073	4 35	19 20
4	387.5	14 43 55.589	596	− 8	42 38 37.3	58 7.1	+ 5	0.003 5886	1068	4 33	19 21
5	388.5	14 47 52.143	595	− 6	43 36 44.4	58 5.5	+18	0.003 6954	1062	4 32	19 23
6	389.5	14 51 48.697	594	− 2	44 34 49.9	58 4.0	+29	0.003 8016	1056	4 30	19 24
7	390.5	14 55 45.252	593	+ 2	45 32 53.9	58 2.5	+39	0.003 9072	1048	4 28	19 26
8	391.5	14 59 41.806	593	+ 6	46 30 56.4	58 1.1	+47	0.004 0120	1039	4 27	19 27
9	392.5	15 3 38.361	+592	+ 9	47 28 57.5	57 59.7	+52	0.004 1159	1030	4 25	19 29
10	393.5	15 7 34.916	592	+11	48 26 57.2	57 58.3	+55	0.004 2189	1018	4 24	19 30
11	394.5	15 11 31.471	591	+10	49 24 55.5	57 57.0	+55	0.004 3207	1006	4 22	19 32
12	395.5	15 15 28.026	591	+ 8	50 22 52.5	57 55.7	+52	0.004 4213	992	4 20	19 33
13	396.5	15 19 24.581	590	+ 5	51 20 48.2	57 54.4	+46	0.004 5205	977	4 19	19 35
14	397.5	15 23 21.136	590	0	52 18 42.6	57 53.2	+37	0.004 6182	961	4 17	19 36
15	398.5	15 27 17.691	+590	− 5	53 16 35.8	57 51.9	+26	0.004 7143	943	4 16	19 38
16	399.5	15 31 14.246	590	−10	54 14 27.7	57 50.6	+14	0.004 8086	924	4 14	19 39
17	400.5	15 35 10.802	590	−13	55 12 18.3	57 49.3	+ 1	0.004 9010	905	4 13	19 40
18	401.5	15 39 7.357	590	−14	56 10 7.6	57 47.9	−13	0.004 9915	885	4 12	19 42
19	402.5	15 43 3.913	590	−12	57 7 55.5	57 46.5	−27	0.005 0800	863	4 10	19 43
20	403.5	15 47 0.468	590	− 8	58 5 42.0	57 45.1	−39	0.005 1663	841	4 9	19 45
21	404.5	15 50 57.024	+590	− 3	59 3 27.1	57 43.7	−50	0.005 2504	820	4 8	19 46
22	405.5	15 54 53.580	591	+ 3	60 1 10.8	57 42.1	−59	0.005 3324	800	4 7	19 47
23	406.5	15 58 50.135	591	+ 8	60 58 52.9	57 40.6	−66	0.005 4124	780	4 6	19 48
24	407.5	16 2 46.691	592	+11	61 56 33.5	57 39.1	−69	0.005 4904	761	4 4	19 50
25	408.5	16 6 43.247	592	+12	62 54 12.6	57 37.5	−68	0.005 5665	743	4 3	19 51
26	409.5	16 10 39.803	593	+ 9	63 51 50.1	57 35.9	−64	0.005 6408	727	4 2	19 52
27	410.5	16 14 36.360	+594	+ 5	64 49 26.0	57 34.5	−57	0.005 7135	712	4 1	19 53
28	411.5	16 18 32.916	595	0	65 47 0.5	57 33.0	−47	0.005 7847	697	4 0	19 54
29	412.5	16 22 29.472	595	− 5	66 44 33.5	57 31.7	−35	0.005 8544	684	3 59	19 56
30	413.5	16 26 26.028	596	− 8	67 42 5.2	57 30.4	−22	0.005 9228	672	3 58	19 57
31	414.5	16 30 22.584	597	− 8	68 39 35.6	57 29.2	− 9	0.005 9900	661	3 57	19 58
Juni 1	415.5	16 34 19.141	598	− 7	69 37 4.8	57 28.0	+ 5	0.006 0561	648	3 56	19 59
2	416.5	16 38 15.697	+599	− 4	70 34 32.8	57 27.0	+17	0.006 1209	636	3 56	20 0
3	417.5	16 42 12.254	601	0	71 31 59.8	57 26.1	+28	0.006 1845	625	3 55	20 1
4	418.5	16 46 8.810	602	+ 5	72 29 25.9	57 25.2	+35	0.006 2470	612	3 55	20 2
5	419.5	16 50 5.367	603	+ 8	73 26 51.1	57 24.5	+41	0.006 3082	597	3 54	20 3
6	420.5	16 54 1.924	604	+10	74 24 15.6	57 23.7	+44	0.006 3679	583	3 53	20 4
7	421.5	16 57 58.480	606	+10	75 21 39.3	57 23.0	+45	0.006 4262	567	3 53	20 5
8	422.5	17 1 55.037	+607	+ 9	76 19 2.3	57 22.4	+43	0.006 4829	551	3 52	20 5
9	423.5	17 5 51.594	608	+ 6	77 16 24.7	57 21.9	+38	0.006 5380	533	3 52	20 6
10	424.5	17 9 48.150	610	+ 2	78 13 46.6	57 21.3	+31	0.006 5913	515	3 51	20 7
11	425.5	17 13 44.707	611	− 4	79 11 7.9	57 20.9	+21	0.006 6428	495	3 51	20 8
12	426.5	17 17 41.264	613	− 9	80 8 28.8	57 20.3	+10	0.006 6923	474	3 51	20 8
13	427.5	17 21 37.821	+614	−13	81 5 49.1		− 3	0.006 7397		3 50	20 9

Tag	Wochentag	0h Welt-Zeit: Zeitgleichung (Wahre Zeit *minus* Mittlere Zeit)		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1939		m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Juni 13	Di	+0 22.44	12.41	5 21 15.38	4 8.97	+23 8 46.3	3 37.9	68.83	15 46.69
14	Mi	+0 10.03	12.60	5 25 24.35	4 9.15	23 12 24.2	3 13.4	68.86	15 46.59
15	Do	−0 2.57	12.75	5 29 33.50	4 9.31	23 15 37.6	2 48.7	68.88	15 46.50
16	Fr	0 15.32	12.87	5 33 42.81	4 9.43	23 18 26.3	2 24.2	68.90	15 46.41
17	Sa	0 28.19	12.97	5 37 52.24	4 9.53	23 20 50.5	1 59.4	68.91	15 46.33
18	St	0 41.16	13.05	5 42 1.77	4 9.60	23 22 49.9	1 34.6	68.93	15 46.25
19	Mo	−0 54.21	13.08	5 46 11.37	4 9.64	+23 24 24.5	1 10.0	68.94	15 46.19
20	Di	1 7.29	13.10	5 50 21.01	4 9.66	23 25 34.5	0 45.1	68.94	15 46.12
21	Mi	1 20.39	13.08	5 54 30.67	4 9.64	23 26 19.6	0 20.4	68.94	15 46.06
22	Do	1 33.47	13.04	5 58 40.31	4 9.59	23 26 40.0	0 4.5	68.94	15 46.01
23	Fr	1 46.51	12.98	6 2 49.90	4 9.53	23 26 35.5	0 29.2	68.93	15 45.96
24	Sa	1 59.49	12.88	6 6 59.43	4 9.44	23 26 6.3	0 53.9	68.92	15 45.91
25	St	−2 12.37	12.76	6 11 8.87	4 9.33	+23 25 12.4	1 18.7	68.91	15 45.87
26	Mo	2 25.13	12.64	6 15 18.20	4 9.19	23 23 53.7	1 43.3	68.90	15 45.84
27	Di	2 37.77	12.47	6 19 27.39	4 9.03	23 22 10.4	2 8.0	68.89	15 45.80
28	Mi	2 50.24	12.30	6 23 36.42	4 8.85	23 20 2.4	2 32.5	68.87	15 45.78
29	Do	3 2.54	12.10	6 27 45.27	4 8.66	23 17 29.9	2 57.1	68.84	15 45.75
30	Fr	3 14.64	11.89	6 31 53.93	4 8.45	23 14 32.8	3 21.5	68.82	15 45.73
Juli 1	Sa	−3 26.53	11.65	6 36 2.38	4 8.21	+23 11 11.3	3 45.8	68.79	15 45.71
2	St	3 38.18	11.41	6 40 10.59	4 7.96	23 7 25.5	4 10.1	68.75	15 45.70
3	Mo	3 49.59	11.14	6 44 18.55	4 7.70	23 3 15.4	4 34.3	68.71	15 45.68
4	Di	4 0.73	10.85	6 48 26.25	4 7.41	22 58 41.1	4 58.3	68.67	15 45.68
5	Mi	4 11.58	10.55	6 52 33.66	4 7.10	22 53 42.8	5 22.3	68.63	15 45.67
6	Do	4 22.13	10.24	6 56 40.76	4 6.79	22 48 20.5	5 46.1	68.59	15 45.67
7	Fr	−4 32.37	9.89	7 0 47.55	4 6.45	+22 42 34.4	6 9.8	68.54	15 45.67
8	Sa	4 42.26	9.53	7 4 54.00	4 6.09	22 36 24.6	6 33.3	68.49	15 45.68
9	St	4 51.79	9.17	7 9 0.09	4 5.73	22 29 51.3	6 56.7	68.43	15 45.69
10	Mo	5 0.96	8.78	7 13 5.82	4 5.33	22 22 54.6	7 19.9	68.38	15 45.70
11	Di	5 9.74	8.37	7 17 11.15	4 4.93	22 15 34.7	7 43.0	68.32	15 45.72
12	Mi	5 18.11	7.95	7 21 16.08	4 4.51	22 7 51.7	8 5.8	68.26	15 45.75
13	Do	−5 26.06	7.51	7 25 20.59	4 4.06	+21 59 45.9	8 28.5	68.20	15 45.78
14	Fr	5 33.57	7.05	7 29 24.65	4 3.61	21 51 17.4	8 50.9	68.14	15 45.81
15	Sa	5 40.62	6.58	7 33 28.26	4 3.13	21 42 26.5	9 13.2	68.07	15 45.85
16	St	5 47.20	6.08	7 37 31.39	4 2.64	21 33 13.3	9 35.3	68.00	15 45.90
17	Mo	5 53.28	5.57	7 41 34.03	4 2.13	21 23 38.0	9 57.0	67.92	15 45.95
18	Di	5 58.85	5.04	7 45 36.16	4 1.59	21 13 41.0	10 18.5	67.85	15 46.01
19	Mi	−6 3.89	4.49	7 49 37.75	4 1.05	+21 3 22.5	10 40.0	67.78	15 46.07
20	Do	6 8.38	3.94	7 53 38.80	4 0.49	20 52 42.5	11 0.9	67.70	15 46.14
21	Fr	6 12.32	3.36	7 57 39.29	3 59.92	20 41 41.6	11 21.8	67.62	15 46.21
22	Sa	6 15.68	2.77	8 1 39.21	3 59.33	20 30 19.8	11 42.5	67.54	15 46.29
23	St	6 18.45	2.19	8 5 38.54	3 58.74	20 18 37.3	12 2.7	67.46	15 46.37
24	Mo	−6 20.64		8 9 37.28		+20 6 34.6		67.38	15 46.46

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	0h Welt-Zeit — Mittleres Äquinoktium 1939.0 Länge	Diff.	Breite	log R	Diff.	Aufgang in +50° Breite 0h Länge	Untergang in +50° Breite 0h Länge
1939	2429	h m s	in 0.001 s		° ′ ″	′ ″	in 0.01″			h m	h m
Juni 13	427.5	17 21 37.821	+614	−13	81 5 49.1	57 19.9	− 3	0.006 7397	452	3 50	20 9
14	428.5	17 25 34.378	616	−15	82 3 9.0	57 19.4	−16	0.006 7849	428	3 50	20 9
15	429.5	17 29 30.935	617	−14	83 0 28.4	57 19.0	−29	0.006 8277	403	3 50	20 10
16	430.5	17 33 27.492	619	−11	83 57 47.4	57 18.5	−42	0.006 8680	378	3 50	20 10
17	431.5	17 37 24.049	620	− 6	84 55 5.9	57 18.0	−55	0.006 9058	352	3 50	20 11
18	432.5	17 41 20.606	622	+ 1	85 52 23.9	57 17.3	−65	0.006 9410	325	3 50	20 11
19	433.5	17 45 17.163	+624	+ 7	86 49 41.2	57 16.8	−71	0.006 9735	299	3 50	20 12
20	434.5	17 49 13.720	625	+11	87 46 58.0	57 16.1	−74	0.007 0034	274	3 50	20 12
21	435.5	17 53 10.277	627	+12	88 44 14.1	57 15.4	−73	0.007 0308	249	3 50	20 12
22	436.5	17 57 6.834	629	+11	89 41 29.5	57 14.7	−70	0.007 0557	226	3 50	20 12
23	437.5	18 1 3.391	630	+ 7	90 38 44.2	57 14.1	−65	0.007 0783	204	3 51	20 13
24	438.5	18 4 59.948	632	+ 2	91 35 58.3	57 13.4	−56	0.007 0987	183	3 51	20 13
25	439.5	18 8 56.505	+633	− 3	92 33 11.7	57 12.8	−45	0.007 1170	164	3 51	20 13
26	440.5	18 12 53.062	635	− 6	93 30 24.5	57 12.2	−32	0.007 1334	146	3 51	20 13
27	441.5	18 16 49.619	637	− 8	94 27 36.7	57 11.7	−19	0.007 1480	129	3 52	20 13
28	442.5	18 20 46.176	638	− 7	95 24 48.4	57 11.3	− 7	0.007 1609	114	3 52	20 13
29	443.5	18 24 42.732	640	− 4	96 21 59.7	57 10.9	+ 4	0.007 1723	98	3 53	20 13
30	444.5	18 28 39.289	641	0	97 19 10.6	57 10.7	+15	0.007 1821	83	3 53	20 13
Juli 1	445.5	18 32 35.846	+643	+ 4	98 16 21.3	57 10.5	+24	0.007 1904	68	3 54	20 13
2	446.5	18 36 32.403	644	+ 7	99 13 31.8	57 10.5	+31	0.007 1972	52	3 55	20 12
3	447.5	18 40 28.960	646	+10	100 10 42.3	57 10.5	+35	0.007 2024	37	3 55	20 12
4	448.5	18 44 25.517	647	+10	101 7 52.8	57 10.6	+36	0.007 2061	22	3 56	20 11
5	449.5	18 48 22.074	649	+ 9	102 5 3.4	57 10.7	+35	0.007 2083	6	3 57	20 11
6	450.5	18 52 18.630	650	+ 7	103 2 14.1	57 10.9	+31	0.007 2089	$\overline{12}$	3 58	20 11
7	451.5	18 56 15.187	+652	+ 3	103 59 25.0	57 11.2	+24	0.007 2077	29	3 59	20 10
8	452.5	19 0 11.744	653	− 2	104 56 36.2	57 11.6	+15	0.007 2048	48	3 59	20 10
9	453.5	19 4 8.300	654	− 7	105 53 47.8	57 12.0	+ 5	0.007 2000	67	4 0	20 9
10	454.5	19 8 4.857	656	−12	106 50 59.8	57 12.4	− 7	0.007 1933	88	4 1	20 9
11	455.5	19 12 1.414	657	−15	107 48 12.2	57 12.9	−20	0.007 1845	110	4 2	20 8
12	456.5	19 15 57.970	658	−15	108 45 25.1	57 13.4	−33	0.007 1735	132	4 3	20 7
13	457.5	19 19 54.526	+659	−13	109 42 38.5	57 13.9	−45	0.007 1603	156	4 4	20 7
14	458.5	19 23 51.083	660	− 9	110 39 52.4	57 14.4	−56	0.007 1447	182	4 5	20 6
15	459.5	19 27 47.639	661	− 3	111 37 6.8	57 14.9	−65	0.007 1265	208	4 6	20 5
16	460.5	19 31 44.195	662	+ 4	112 34 21.7	57 15.3	−72	0.007 1057	235	4 7	20 4
17	461.5	19 35 40.752	663	+ 9	113 31 37.0	57 15.6	−75	0.007 0822	262	4 8	20 3
18	462.5	19 39 37.308	663	+12	114 28 52.6	57 15.9	−76	0.007 0560	289	4 10	20 2
19	463.5	19 43 33.864	+664	+12	115 26 8.5	57 16.3	−73	0.007 0271	314	4 11	20 1
20	464.5	19 47 30.420	665	+ 9	116 23 24.8	57 16.6	−68	0.006 9957	339	4 12	20 0
21	465.5	19 51 26.976	665	+ 4	117 20 41.4	57 16.8	−59	0.006 9618	362	4 13	19 59
22	466.5	19 55 23.532	666	− 1	118 17 58.2	57 17.0	−48	0.006 9256	385	4 14	19 58
23	467.5	19 59 20.088	666	− 5	119 15 15.2	57 17.3	−35	0.006 8871	405	4 16	19 56
24	468.5	20 3 16.643	+667	− 7	120 12 32.5		−22	0.006 8466		4 17	19 55

Sonne 1939

Tag		Wochentag	0ʰ Welt-Zeit							
			Zeitgleichung Wahre Zeit *minus* Mittlere Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1939			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Juli	24	Mo	−6 20.64	1.58	8 9 37.28	3 58.14	+20 6 34.6	12 22.8	67.38	15 46.46
	25	Di	6 22.22	0.99	8 13 35.42	3 57.54	19 54 11.8	12 42.7	67.30	15 46.55
	26	Mi	6 23.21	0.38	8 17 32.96	3 56.94	19 41 29.1	13 2.3	67.22	15 46.65
	27	Do	6 23.59	0.23	8 21 29.90	3 56.32	19 28 26.8	13 21.6	67.13	15 46.75
	28	Fr	6 23.36	0.84	8 25 26.22	3 55.72	19 15 5.2	13 40.6	67.05	15 46.85
	29	Sa	6 22.52	1.46	8 29 21.94	3 55.10	19 1 24.6	13 59.5	66.96	15 46.96
	30	St	−6 21.06	2.05	8 33 17.04	3 54.50	+18 47 25.1	14 18.0	66.87	15 47.07
	31	Mo	6 19.01	2.67	8 37 11.54	3 53.89	18 33 7.1	14 36.3	66.79	15 47.18
Aug.	1	Di	6 16.34	3.26	8 41 5.43	3 53.29	18 18 30.8	14 54.3	66.70	15 47.30
	2	Mi	6 13.08	3.87	8 44 58.72	3 52.69	18 3 36.5	15 12.1	66.61	15 47.41
	3	Do	6 9.21	4.46	8 48 51.41	3 52.09	17 48 24.4	15 29.4	66.53	15 47.53
	4	Fr	6 4.75	5.06	8 52 43.50	3 51.50	17 32 55.0	15 46.7	66.44	15 47.66
	5	Sa	−5 59.69	5.64	8 56 35.00	3 50.91	+17 17 8.3	16 3.5	66.35	15 47.78
	6	St	5 54.05	6.23	9 0 25.91	3 50.33	17 1 4.8	16 20.1	66.27	15 47.92
	7	Mo	5 47.82	6.80	9 4 16.24	3 49.75	16 44 44.7	16 36.5	66.18	15 48.05
	8	Di	5 41.02	7.38	9 8 5.99	3 49.18	16 28 8.2	16 52.4	66.09	15 48.19
	9	Mi	5 33.64	7.94	9 11 55.17	3 48.61	16 11 15.8	17 8.1	66.01	15 48.33
	10	Do	5 25.70	8.50	9 15 43.78	3 48.05	15 54 7.7	17 23.5	65.92	15 48.48
	11	Fr	−5 17.20	9.06	9 19 31.83	3 47.50	+15 36 44.2	17 38.6	65.84	15 48.62
	12	Sa	5 8.14	9.61	9 23 19.33	3 46.95	15 19 5.6	17 53.3	65.76	15 48.77
	13	St	4 58.53	10.15	9 27 6.28	3 46.40	15 1 12.3	18 7.8	65.68	15 48.93
	14	Mo	4 48.38	10.70	9 30 52.68	3 45.85	14 43 4.5	18 21.8	65.60	15 49.10
	15	Di	4 37.68	11.24	9 34 38.53	3 45.31	14 24 42.7	18 35.6	65.52	15 49.27
	16	Mi	4 26.44	11.77	9 38 23.84	3 44.78	14 6 7.1	18 49.0	65.44	15 49.44
	17	Do	−4 14.67	12.31	9 42 8.62	3 44.25	+13 47 18.1	19 2.2	65.36	15 49.62
	18	Fr	4 2.36	12.83	9 45 52.87	3 43.72	13 28 15.9	19 14.8	65.29	15 49.81
	19	Sa	3 49.53	13.35	9 49 36.59	3 43.21	13 9 1.1	19 27.3	65.21	15 49.99
	20	St	3 36.18	13.85	9 53 19.80	3 42.70	12 49 33.8	19 39.4	65.14	15 50.18
	21	Mo	3 22.33	14.35	9 57 2.50	3 42.20	12 29 54.4	19 51.2	65.07	15 50.38
	22	Di	3 7.98	14.84	10 0 44.70	3 41.72	12 10 3.2	20 2.6	65.00	15 50.58
	23	Mi	−2 53.14	15.30	10 4 26.42	3 41.25	+11 50 0.6	20 13.9	64.94	15 50.78
	24	Do	2 37.84	15.76	10 8 7.67	3 40.79	11 29 46.7	20 24.7	64.87	15 50.99
	25	Fr	2 22.08	16.19	10 11 48.46	3 40.36	11 9 22.0	20 35.2	64.81	15 51.20
	26	Sa	2 5.89	16.62	10 15 28.82	3 39.94	10 48 46.8	20 45.5	64.75	15 51.41
	27	St	1 49.27	17.02	10 19 8.76	3 39.53	10 28 1.3	20 55.4	64.69	15 51.62
	28	Mo	1 32.25	17.41	10 22 48.29	3 39.14	10 7 5.9	21 5.0	64.63	15 51.84
	29	Di	−1 14.84	17.78	10 26 27.43	3 38.78	+ 9 46 0.9	21 14.4	64.57	15 52.05
	30	Mi	0 57.06	18.12	10 30 6.21	3 38.43	9 24 46.5	21 23.4	64.52	15 52.27
	31	Do	0 38.94	18.45	10 33 44.64	3 38.10	9 3 23.1	21 32.1	64.46	15 52.48
Sept.	1	Fr	0 20.49	18.77	10 37 22.74	3 37.79	8 41 51.0	21 40.6	64.41	15 52.71
	2	Sa	−0 1.72	19.05	10 41 0.53	3 37.50	8 20 10.4	21 48.6	64.37	15 52.93
	3	St	+0 17.33		10 44 38.03		+ 7 58 21.8		64.33	15 53.16

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1939.0 Länge		Breite	log R		Aufgang	Untergang
	0h Welt-Zeit									in {+50° Breite, 0h Länge}	
1939	2429	h m s	in 0.001 s		° ′ ″	′ ″	in 0.01 ″			h m	h m
Juli 24	468.5	20 3 16.643	+667	− 7	120 12 32.5	57 17.7	−22	0.006 8466	424	4 17	19 55
25	469.5	20 7 13.199	667	− 7	121 9 50.2	57 18.0	− 9	0.006 8042	441	4 18	19 54
26	470.5	20 11 9.755	667	− 4	122 7 8.2	57 18.4	+ 4	0.006 7601	457	4 19	19 53
27	471.5	20 15 6.310	667	− 1	123 4 26.6	57 19.0	+15	0.006 7144	473	4 21	19 51
28	472.5	20 19 2.865	667	+ 3	124 1 45.6	57 19.5	+23	0.006 6671	487	4 22	19 50
29	473.5	20 22 59.421	667	+ 7	124 59 5.1	57 20.1	+30	0.006 6184	502	4 24	19 48
30	474.5	20 26 55.976	+667	+10	125 56 25.2	57 20.9	+33	0.006 5682	515	4 25	19 47
31	475.5	20 30 52.531	667	+11	126 53 46.1	57 21.7	+34	0.006 5167	529	4 26	19 46
Aug. 1	476.5	20 34 49.086	667	+10	127 51 7.8	57 22.6	+33	0.006 4638	542	4 28	19 44
2	477.5	20 38 45.642	667	+ 8	128 48 30.4	57 23.6	+30	0.006 4096	555	4 29	19 43
3	478.5	20 42 42.197	666	+ 4	129 45 54.0	57 24.6	+24	0.006 3541	569	4 31	19 41
4	479.5	20 46 38.751	666	0	130 43 18.6	57 25.8	+15	0.006 2972	584	4 32	19 40
5	480.5	20 50 35.306	+665	− 5	131 40 44.4	57 26.9	+ 5	0.006 2388	599	4 33	19 38
6	481.5	20 54 31.861	665	−10	132 38 11.3	57 28.1	− 6	0.006 1789	613	4 35	19 36
7	482.5	20 58 28.416	664	−14	133 35 39.4	57 29.4	−18	0.006 1176	629	4 36	19 35
8	483.5	21 2 24.970	663	−15	134 33 8.8	57 30.8	−31	0.006 0547	647	4 38	19 33
9	484.5	21 6 21.525	662	−15	135 30 39.6	57 32.1	−43	0.005 9900	664	4 39	19 31
10	485.5	21 10 18.079	661	−11	136 28 11.7	57 33.6	−54	0.005 9236	683	4 40	19 29
11	486.5	21 14 14.633	+660	− 6	137 25 45.3	57 34.9	−63	0.005 8553	703	4 42	19 27
12	487.5	21 18 11.187	659	0	138 23 20.2	57 36.3	−70	0.005 7850	726	4 43	19 26
13	488.5	21 22 7.741	658	+ 6	139 20 56.5	57 37.7	−73	0.005 7124	748	4 45	19 24
14	489.5	21 26 4.295	656	+10	140 18 34.2	57 39.0	−74	0.005 6376	770	4 46	19 22
15	490.5	21 30 0.849	655	+11	141 16 13.2	57 40.3	−72	0.005 5606	794	4 48	19 20
16	491.5	21 33 57.403	653	+ 9	142 13 53.5	57 41.5	−66	0.005 4812	817	4 49	19 18
17	492.5	21 37 53.957	+652	+ 5	143 11 35.0	57 42.6	−57	0.005 3995	839	4 51	19 17
18	493.5	21 41 50.511	650	+ 1	144 9 17.6	57 43.8	−47	0.005 3156	859	4 52	19 15
19	494.5	21 45 47.064	648	− 4	145 7 1.4	57 44.9	−34	0.005 2297	879	4 54	19 13
20	495.5	21 49 43.618	646	− 7	146 4 46.3	57 45.9	−20	0.005 1418	896	4 55	19 11
21	496.5	21 53 40.171	644	− 7	147 2 32.2	57 47.1	− 7	0.005 0522	912	4 57	19 9
22	497.5	21 57 36.725	642	− 5	148 0 19.3	57 48.2	+ 6	0.004 9610	926	4 58	19 7
23	498.5	22 1 33.278	+640	− 2	148 58 7.5	57 49.3	+16	0.004 8684	939	5 0	19 5
24	499.5	22 5 29.831	638	+ 3	149 55 56.8	57 50.6	+26	0.004 7745	951	5 1	19 3
25	500.5	22 9 26.384	636	+ 7	150 53 47.4	57 51.9	+34	0.004 6794	962	5 2	19 1
26	501.5	22 13 22.937	634	+10	151 51 39.3	57 53.2	+39	0.004 5832	972	5 4	18 59
27	502.5	22 17 19.490	631	+11	152 49 32.5	57 54.6	+41	0.004 4860	980	5 5	18 57
28	503.5	22 21 16.043	629	+11	153 47 27.1	57 56.1	+40	0.004 3880	988	5 7	18 55
29	504.5	22 25 12.596	+626	+ 9	154 45 23.2	57 57.6	+37	0.004 2892	996	5 8	18 53
30	505.5	22 29 9.149	624	+ 6	155 43 20.8	57 59.2	+30	0.004 1896	1004	5 10	18 51
31	506.5	22 33 5.701	621	+ 2	156 41 20.0	58 0.9	+22	0.004 0892	1010	5 11	18 49
Sept. 1	507.5	22 37 2.254	618	− 3	157 39 20.9	58 2.6	+13	0.003 9882	1017	5 13	18 46
2	508.5	22 40 58.807	615	− 8	158 37 23.5	58 4.5	+ 2	0.003 8865	1025	5 14	18 44
3	509.5	22 44 55.359	+613	−12	159 35 28.0		−10	0.003 7840		5 16	18 42

Tag		Wochentag	0h Welt-Zeit: Zeitgleichung, Wahre Zeit *minus* Mittlere Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1939			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Sept.	3	St	+ 0 17.33	19.33	10 44 38.03	3 37.22	+7 58 21.8	21 56.4	64.33	15 53.16
	4	Mo	0 36.66	19.57	10 48 15.25	3 36.98	7 36 25.4	22 3.9	64.29	15 53.38
	5	Di	0 56.23	19.81	10 51 52.23	3 36.74	7 14 21.5	22 11.0	64.25	15 53.61
	6	Mi	1 16.04	20.02	10 55 28.97	3 36.53	6 52 10.5	22 17.9	64.21	15 53.84
	7	Do	1 36.06	20.22	10 59 5.50	3 36.34	6 29 52.6	22 24.4	64.18	15 54.07
	8	Fr	1 56.28	20.38	11 2 41.84	3 36.17	6 7 28.2	22 30.5	64.15	15 54.31
	9	Sa	+ 2 16.66	20.55	11 6 18.01	3 36.01	+5 44 57.7	22 36.4	64.13	15 54.55
	10	St	2 37.21	20.68	11 9 54.02	3 35.87	5 22 21.3	22 42.0	64.10	15 54.79
	11	Mo	2 57.89	20.81	11 13 29.89	3 35.74	4 59 39.3	22 47.1	64.08	15 55.03
	12	Di	3 18.70	20.92	11 17 5.63	3 35.64	4 36 52.2	22 51.9	64.06	15 55.28
	13	Mi	3 39.62	21.01	11 20 41.27	3 35.54	4 14 0.3	22 56.3	64.04	15 55.53
	14	Do	4 0.63	21.09	11 24 16.81	3 35.45	3 51 4.0	23 0.4	64.03	15 55.78
	15	Fr	+ 4 21.72	21.16	11 27 52.26	3 35.39	+3 28 3.6	23 4.2	64.02	15 56.04
	16	Sa	4 42.88	21.22	11 31 27.65	3 35.34	3 4 59.4	23 7.6	64.01	15 56.30
	17	St	5 4.10	21.24	11 35 2.99	3 35.31	2 41 51.8	23 10.6	64.01	15 56.56
	18	Mo	5 25.34	21.26	11 38 38.30	3 35.29	2 18 41.2	23 13.4	64.01	15 56.83
	19	Di	5 46.60	21.26	11 42 13.59	3 35.29	1 55 27.8	23 15.7	64.01	15 57.09
	20	Mi	6 7.86	21.24	11 45 48.88	3 35.32	1 32 12.1	23 17.7	64.01	15 57.36
	21	Do	+ 6 29.10	21.19	11 49 24.20	3 35.36	+1 8 54.4	23 19.4	64.02	15 57.63
	22	Fr	6 50.29	21.13	11 52 59.56	3 35.42	0 45 35.0	23 20.8	64.03	15 57.90
	23	Sa	7 11.42	21.04	11 56 34.98	3 35.51	+0 22 14.2	23 21.9	64.04	15 58.18
	24	St	7 32.46	20.93	12 0 10.49	3 35.62	−0 1 7.7	23 22.6	64.06	15 58.46
	25	Mo	7 53.39	20.80	12 3 46.11	3 35.76	0 24 30.3	23 22.9	64.08	15 58.73
	26	Di	8 14.19	20.65	12 7 21.87	3 35.90	0 47 53.2	23 23.0	64.10	15 59.01
	27	Mi	+ 8 34.84	20.46	12 10 57.77	3 36.09	−1 11 16.2	23 22.8	64.13	15 59.28
	28	Do	8 55.30	20.27	12 14 33.86	3 36.29	1 34 39.0	23 22.1	64.16	15 59.55
	29	Fr	9 15.57	20.03	12 18 10.15	3 36.51	1 58 1.1	23 21.2	64.19	15 59.82
	30	Sa	9 35.60	19.79	12 21 46.66	3 36.76	2 21 22.3	23 20.0	64.22	16 0.10
Okt.	1	St	9 55.39	19.52	12 25 23.42	3 37.03	2 44 42.3	23 18.3	64.26	16 0.37
	2	Mo	10 14.91	19.22	12 29 0.45	3 37.34	3 8 0.6	23 16.4	64.31	16 0.64
	3	Di	+10 34.13	18.90	12 32 37.79	3 37.65	−3 31 17.0	23 14.1	64.35	16 0.92
	4	Mi	10 53.03	18.56	12 36 15.44	3 37.99	3 54 31.1	23 11.4	64.40	16 1.19
	5	Do	11 11.59	18.20	12 39 53.43	3 38.36	4 17 42.5	23 8.5	64.45	16 1.46
	6	Fr	11 29.79	17.80	12 43 31.79	3 38.74	4 40 51.0	23 5.1	64.50	16 1.72
	7	Sa	11 47.59	17.40	12 47 10.53	3 39.16	5 3 56.1	23 1.4	64.55	16 1.99
	8	St	12 4.99	16.98	12 50 49.69	3 39.57	5 26 57.5	22 57.3	64.61	16 2.27
	9	Mo	+12 21.97	16.53	12 54 29.26	3 40.02	−5 49 54.8	22 52.9	64.67	16 2.54
	10	Di	12 38.50	16.08	12 58 9.28	3 40.48	6 12 47.7	22 48.0	64.73	16 2.81
	11	Mi	12 54.58	15.60	13 1 49.76	3 40.95	6 35 35.7	22 42.8	64.80	16 3.08
	12	Do	13 10.18	15.11	13 5 30.71	3 41.44	6 58 18.5	22 37.1	64.87	16 3.36
	13	Fr	13 25.29	14.60	13 9 12.15	3 41.95	7 20 55.6	22 31.1	64.95	16 3.64
	14	Sa	+13 39.89		13 12 54.10		−7 43 26.7		65.02	16 3.91

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1939.0 Länge		Breite	log R		Aufgang in {+50° Breite	Untergang in 0h Länge
1939	2429	h m s	in 0.001 s		° ′ ″	′ ″	in 0.01″			h m	h m
Sept. 3	509.5	22 44 55.359	+613	−12	159 35 28.0	58 6.3	−10	0.003 7840	1032	5 16	18 42
4	510.5	22 48 51.911	610	−14	160 33 34.3	58 8.3	−23	0.003 6808	1040	5 18	18 40
5	511.5	22 52 48.464	607	−14	161 31 42.6	58 10.2	−36	0.003 5768	1048	5 19	18 38
6	512.5	22 56 45.016	604	−12	162 29 52.8	58 12.2	−47	0.003 4720	1058	5 21	18 35
7	513.5	23 0 41.568	601	− 8	163 28 5.0	58 14.3	−57	0.003 3662	1069	5 22	18 33
8	514.5	23 4 38.121	597	− 3	164 26 19.3	58 16.4	−64	0.003 2593	1080	5 24	18 31
9	515.5	23 8 34.673	+594	+ 3	165 24 35.7	58 18.5	−67	0.003 1513	1093	5 25	18 29
10	516.5	23 12 31.225	591	+ 8	166 22 54.2	58 20.5	−68	0.003 0420	1107	5 27	18 27
11	517.5	23 16 27.777	588	+ 9	167 21 14.7	58 22.5	−66	0.002 9313	1122	5 28	18 25
12	518.5	23 20 24.329	584	+ 9	168 19 37.2	58 24.5	−60	0.002 8191	1136	5 30	18 23
13	519.5	23 24 20.881	581	+ 6	169 18 1.7	58 26.3	−51	0.002 7055	1151	5 31	18 21
14	520.5	23 28 17.433	578	+ 1	170 16 28.0	58 28.2	−39	0.002 5904	1166	5 32	18 19
15	521.5	23 32 13.985	+574	− 3	171 14 56.2	58 30.0	−26	0.002 4738	1181	5 34	18 17
16	522.5	23 36 10.537	571	− 7	172 13 26.2	58 31.7	−13	0.002 3557	1194	5 35	18 14
17	523.5	23 40 7.089	567	− 8	173 11 57.9	58 33.3	+ 1	0.002 2363	1205	5 37	18 12
18	524.5	23 44 3.641	564	− 6	174 10 31.2	58 35.0	+16	0.002 1158	1215	5 38	18 10
19	525.5	23 48 0.193	560	− 3	175 9 6.2	58 36.7	+28	0.001 9943	1223	5 40	18 8
20	526.5	23 51 56.745	557	+ 1	176 7 42.9	58 38.3	+39	0.001 8720	1230	5 41	18 5
21	527.5	23 55 53.296	+553	+ 6	177 6 21.2	58 40.0	+48	0.001 7490	1235	5 43	18 3
22	528.5	23 59 49.848	550	+10	178 5 1.2	58 41.7	+53	0.001 6255	1238	5 44	18 0
23	529.5	0 3 46.400	546	+12	179 3 42.9	58 43.5	+56	0.001 5017	1241	5 46	17 58
24	530.5	0 7 42.952	543	+12	180 2 26.4	58 45.2	+56	0.001 3776	1241	5 48	17 56
25	531.5	0 11 39.504	539	+11	181 1 11.6	58 47.0	+53	0.001 2535	1242	5 49	17 54
26	532.5	0 15 36.055	535	+ 8	181 59 58.6	58 48.9	+48	0.001 1293	1242	5 51	17 51
27	533.5	0 19 32.607	+532	+ 3	182 58 47.5	58 50.9	+41	0.001 0051	1240	5 52	17 49
28	534.5	0 23 29.159	528	− 1	183 57 38.4	58 52.8	+31	0.000 8811	1238	5 54	17 47
29	535.5	0 27 25.711	525	− 6	184 56 31.2	58 54.9	+20	0.000 7573	1235	5 55	17 45
30	536.5	0 31 22.263	521	−10	185 55 26.1	58 56.9	+ 9	0.000 6338	1233	5 57	17 43
Okt. 1	537.5	0 35 18.815	518	−12	186 54 23.0	58 59.1	− 3	0.000 5105	1229	5 58	17 40
2	538.5	0 39 15.367	514	−13	187 53 22.1	59 1.3	−16	0.000 3876	1227	6 0	17 38
3	539.5	0 43 11.918	+511	−12	188 52 23.4	59 3.6	−28	0.000 2649	1225	6 1	17 36
4	540.5	0 47 8.470	508	− 9	189 51 27.0	59 5.9	−38	0.000 1424	1223	6 3	17 34
5	541.5	0 51 5.022	504	− 4	190 50 32.9	59 8.2	−45	0.000 0201	1222	6 4	17 32
6	542.5	0 55 1.574	501	+ 2	191 49 41.1	59 10.5	−50	9.999 8979	1222	6 6	17 30
7	543.5	0 58 58.126	498	+ 6	192 48 51.6	59 12.9	−51	9.999 7757	1224	6 7	17 28
8	544.5	1 2 54.679	494	+ 9	193 48 4.5	59 15.3	−48	9.999 6533	1225	6 9	17 26
9	545.5	1 6 51.231	+491	+ 9	194 47 19.8	59 17.5	−43	9.999 5308	1228	6 11	17 24
10	546.5	1 10 47.783	488	+ 6	195 46 37.3	59 19.8	−35	9.999 4080	1233	6 12	17 22
11	547.5	1 14 44.335	485	+ 2	196 45 57.1	59 22.0	−25	9.999 2847	1237	6 14	17 19
12	548.5	1 18 40.887	482	− 3	197 45 19.1	59 24.1	−12	9.999 1610	1242	6 15	17 17
13	549.5	1 22 37.440	479	− 6	198 44 43.2	59 26.2	+ 2	9.999 0368	1247	6 17	17 15
14	550.5	1 26 33.992	+476	− 8	199 44 9.4		+16	9.998 9121		6 19	17 13

Sonne 1939

Tag	Wochentag	0ʰ Welt-Zeit: Zeitgleichung, Wahre Zeit *minus* Mittlere Zeit (m s)	Diff. (s)	Scheinbare Rektaszension (h m s)	Diff. (m s)	Scheinbare Deklination (° ′ ″)	Diff. (′ ″)	Halbe Durchgangs-Dauer St.-Zt. (s)	Halbmesser (′ ″)
1939									
Okt. 14	Sa	+13 39.89	14.10	13 12 54.10	3 42.46	− 7 43 26.7	22 24.7	65.02	16 3.91
15	St	13 53.99	13.56	13 16 36.56	3 42.99	8 5 51.4	22 17.8	65.10	16 4.19
16	Mo	14 7.55	13.02	13 20 19.55	3 43.53	8 28 9.2	22 10.6	65.18	16 4.46
17	Di	14 20.57	12.46	13 24 3.08	3 44.09	8 50 19.8	22 3.0	65.27	16 4.75
18	Mi	14 33.03	11.89	13 27 47.17	3 44.67	9 12 22.8	21 55.1	65.35	16 5.03
19	Do	14 44.92	11.29	13 31 31.84	3 45.26	9 34 17.9	21 46.6	65.44	16 5.30
20	Fr	+14 56.21	10.69	13 35 17.10	3 45.87	− 9 56 4.5	21 37.8	65.53	16 5.58
21	Sa	15 6.90	10.06	13 39 2.97	3 46.49	10 17 42.3	21 28.7	65.62	16 5.86
22	St	15 16.96	9.42	13 42 49.46	3 47.13	10 39 11.0	21 19.2	65.72	16 6.13
23	Mo	15 26.38	8.76	13 46 36.59	3 47.79	11 0 30.2	21 9.2	65.81	16 6.41
24	Di	15 35.14	8.09	13 50 24.38	3 48.46	11 21 39.4	20 58.9	65.91	16 6.68
25	Mi	15 43.23	7.39	13 54 12.84	3 49.16	11 42 38.3	20 48.2	66.01	16 6.95
26	Do	+15 50.62	6.69	13 58 2.00	3 49.87	−12 3 26.5	20 37.1	66.11	16 7.21
27	Fr	15 57.31	5.97	14 1 51.87	3 50.59	12 24 3.6	20 25.6	66.22	16 7.48
28	Sa	16 3.28	5.22	14 5 42.46	3 51.32	12 44 29.2	20 13.8	66.32	16 7.74
29	St	16 8.50	4.47	14 9 33.78	3 52.09	13 4 43.0	20 1.5	66.43	16 8.00
30	Mo	16 12.97	3.69	14 13 25.87	3 52.86	13 24 44.5	19 48.8	66.54	16 8.26
31	Di	16 16.66	2.91	14 17 18.73	3 53.65	13 44 33.3	19 35.8	66.65	16 8.51
Nov. 1	Mi	+16 19.57	2.11	14 21 12.38	3 54.45	−14 4 9.1	19 22.4	66.77	16 8.76
2	Do	16 21.68	1.29	14 25 6.83	3 55.26	14 23 31.5	19 8.6	66.88	16 9.01
3	Fr	16 22.97	0.46	14 29 2.09	3 56.09	14 42 40.1	18 54.3	66.99	16 9.25
4	Sa	16 23.43	0.37	14 32 58.18	3 56.92	15 1 34.4	18 39.7	67.11	16 9.49
5	St	16 23.06	1.21	14 36 55.10	3 57.77	15 20 14.1	18 24.6	67.23	16 9.74
6	Mo	16 21.85	2.06	14 40 52.87	3 58.61	15 38 38.7	18 9.2	67.34	16 9.97
7	Di	+16 19.79	2.91	14 44 51.48	3 59.47	−15 56 47.9	17 53.3	67.46	16 10.20
8	Mi	16 16.88	3.77	14 48 50.95	4 0.32	16 14 41.2	17 37.0	67.58	16 10.44
9	Do	16 13.11	4.63	14 52 51.27	4 1.18	16 32 18.2	17 20.3	67.70	16 10.67
10	Fr	16 8.48	5.47	14 56 52.45	4 2.03	16 49 38.5	17 3.2	67.82	16 10.90
11	Sa	16 3.01	6.33	15 0 54.48	4 2.88	17 6 41.7	16 45.6	67.94	16 11.13
12	St	15 56.68	7.17	15 4 57.36	4 3.73	17 23 27.3	16 27.7	68.06	16 11.36
13	Mo	+15 49.51	8.02	15 9 1.09	4 4.57	−17 39 55.0	16 9.3	68.18	16 11.58
14	Di	15 41.49	8.85	15 13 5.66	4 5.41	17 56 4.3	15 50.6	68.30	16 11.81
15	Mi	15 32.64	9.69	15 17 11.07	4 6.24	18 11 54.9	15 31.4	68.42	16 12.03
16	Do	15 22.95	10.51	15 21 17.31	4 7.07	18 27 26.3	15 11.8	68.54	16 12.26
17	Fr	15 12.44	11.33	15 25 24.38	4 7.89	18 42 38.1	14 51.9	68.65	16 12.47
18	Sa	15 1.11	12.16	15 29 32.27	4 8.71	18 57 30.0	14 31.6	68.77	16 12.68
19	St	+14 48.95	12.96	15 33 40.98	4 9.52	−19 12 1.6	14 10.9	68.88	16 12.90
20	Mo	14 35.99	13.77	15 37 50.50	4 10.32	19 26 12.5	13 49.8	69.00	16 13.11
21	Di	14 22.22	14.56	15 42 0.82	4 11.12	19 40 2.3	13 28.4	69.11	16 13.32
22	Mi	14 7.66	15.35	15 46 11.94	4 11.91	19 53 30.7	13 6.6	69.22	16 13.51
23	Do	13 52.31	16.13	15 50 23.85	4 12.68	20 6 37.3	12 44.4	69.33	16 13.71
24	Fr	+13 36.18		15 54 36.53		−20 19 21.7		69.44	16 13.90

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1939.0 Länge		Breite	log R		Aufgang	Untergang
										in {+50° Breite, 0h Länge	
1939	2429	h m s	in 0.001 s		° ′ ″	′ ″	in 0.″01			h m	h m
Okt. 14	550.5	1 26 33.992	+476	− 8	199 44 9.4	59 28.1	+16	9.998 9121	1251	6 19	17 13
15	551.5	1 30 30.545	473	− 8	200 43 37.5	59 30.0	+30	9.998 7870	1253	6 20	17 11
16	552.5	1 34 27.097	470	− 5	201 43 7.5	59 31.8	+45	9.998 6617	1255	6 22	17 9
17	553.5	1 38 23.650	467	− 1	202 42 39.3	59 33.6	+57	9.998 5362	1255	6 23	17 7
18	554.5	1 42 20.202	464	+ 4	203 42 12.9	59 35.4	+66	9.998 4107	1253	6 25	17 5
19	555.5	1 46 16.755	462	+ 8	204 41 48.3	59 37.1	+72	9.998 2854	1249	6 27	17 3
20	556.5	1 50 13.308	+459	+11	205 41 25.4	59 38.9	+76	9.998 1605	1245	6 28	17 1
21	557.5	1 54 9.861	457	+13	206 41 4.3	59 40.6	+77	9.998 0360	1238	6 30	16 59
22	558.5	1 58 6.414	454	+12	207 40 44.9	59 42.3	+75	9.997 9122	1231	6 31	16 57
23	559.5	2 2 2.967	452	+ 9	208 40 27.2	59 44.1	+71	9.997 7891	1222	6 33	16 55
24	560.5	2 5 59.520	450	+ 5	209 40 11.3	59 45.9	+64	9.997 6669	1213	6 35	16 53
25	561.5	2 9 56.073	447	+ 1	210 39 57.2	59 47.7	+55	9.997 5456	1201	6 36	16 51
26	562.5	2 13 52.626	+445	− 4	211 39 44.9	59 49.6	+45	9.997 4255	1189	6 38	16 50
27	563.5	2 17 49.179	443	− 9	212 39 34.5	59 51.4	+34	9.997 3066	1176	6 39	16 48
28	564.5	2 21 45.733	441	−12	213 39 25.9	59 53.3	+21	9.997 1890	1163	6 41	16 46
29	565.5	2 25 42.286	439	−13	214 39 19.2	59 55.2	+ 9	9.997 0727	1149	6 43	16 44
30	566.5	2 29 38.840	438	−12	215 39 14.4	59 57.3	− 3	9.996 9578	1135	6 45	16 42
31	567.5	2 33 35.394	436	− 9	216 39 11.7	59 59.4	−13	9.996 8443	1121	6 46	16 41
Nov. 1	568.5	2 37 31.947	+434	− 4	217 39 11.1	60 1.4	−21	9.996 7322	1107	6 48	16 39
2	569.5	2 41 28.501	433	+ 1	218 39 12.5	60 3.6	−28	9.996 6215	1093	6 50	16 37
3	570.5	2 45 25.055	432	+ 6	219 39 16.1	60 5.7	−31	9.996 5122	1082	6 52	16 35
4	571.5	2 49 21.609	430	+ 9	220 39 21.8	60 7.8	−31	9.996 4040	1071	6 53	16 34
5	572.5	2 53 18.164	429	+ 9	221 39 29.6	60 10.0	−26	9.996 2969	1061	6 55	16 32
6	573.5	2 57 14.718	428	+ 7	222 39 39.6	60 12.1	−19	9.996 1908	1052	6 56	16 31
7	574.5	3 1 11.272	+427	+ 4	223 39 51.7	60 14.1	−10	9.996 0856	1044	6 58	16 29
8	575.5	3 5 7.827	426	− 1	224 40 5.8	60 16.1	+ 2	9.995 9812	1038	7 0	16 27
9	576.5	3 9 4.381	426	− 6	225 40 21.9	60 18.1	+16	9.995 8774	1031	7 1	16 26
10	577.5	3 13 0.936	425	− 8	226 40 40.0	60 19.9	+31	9.995 7743	1025	7 3	16 24
11	578.5	3 16 57.491	424	− 9	227 40 59.9	60 21.6	+46	9.995 6718	1018	7 4	16 23
12	579.5	3 20 54.046	424	− 7	228 41 21.5	60 23.2	+59	9.995 5700	1011	7 6	16 21
13	580.5	3 24 50.601	+423	− 3	229 41 44.7	60 24.8	+71	9.995 4689	1005	7 8	16 20
14	581.5	3 28 47.156	423	+ 1	230 42 9.5	60 26.3	+81	9.995 3684	996	7 9	16 19
15	582.5	3 32 43.711	423	+ 6	231 42 35.8	60 27.7	+89	9.995 2688	986	7 11	16 17
16	583.5	3 36 40.266	423	+10	232 43 3.5	60 29.0	+94	9.995 1702	974	7 12	16 16
17	584.5	3 40 36.822	423	+12	233 43 32.5	60 30.4	+96	9.995 0728	962	7 14	16 15
18	585.5	3 44 33.377	423	+12	234 44 2.9	60 31.7	+95	9.994 9766	948	7 16	16 14
19	586.5	3 48 29.933	+423	+10	235 44 34.6	60 32.9	+92	9.994 8818	933	7 17	16 13
20	587.5	3 52 26.488	424	+ 7	236 45 7.5	60 34.2	+86	9.994 7885	916	7 19	16 11
21	588.5	3 56 23.044	424	+ 2	237 45 41.7	60 35.4	+78	9.994 6969	898	7 20	16 10
22	589.5	4 0 19.600	424	− 3	238 46 17.1	60 36.7	+67	9.994 6071	880	7 22	16 9
23	590.5	4 4 16.156	425	− 8	239 46 53.8	60 37.8	+56	9.994 5191	859	7 24	16 8
24	591.5	4 8 12.712	+426	−11	240 47 31.6		+44	9.994 4332		7 25	16 7

Tag	Wochentag	0h Welt-Zeit: Zeitgleichung Wahre Zeit *minus* Mittlere Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1939		m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Nov. 24	Fr	+13 36.18	16.90	15 54 36.53	4 13.46	−20 19 21.7	12 21.9	69.44	16 13.90
25	Sa	13 19.28	17.66	15 58 49.99	4 14.22	20 31 43.6	11 59.1	69.55	16 14.09
26	St	13 1.62	18.42	16 3 4.21	4 14.97	20 43 42.7	11 35.9	69.65	16 14.27
27	Mo	12 43.20	19.15	16 7 19.18	4 15.71	20 55 18.6	11 12.5	69.75	16 14.45
28	Di	12 24.05	19.88	16 11 34.89	4 16.43	21 6 31.1	10 48.6	69.85	16 14.62
29	Mi	12 4.17	20.60	16 15 51.32	4 17.16	21 17 19.7	10 24.5	69.95	16 14.79
30	Do	+11 43.57	21.30	16 20 8.48	4 17.85	−21 27 44.2	10 0.1	70.05	16 14.96
Dez. 1	Fr	11 22.27	21.99	16 24 26.33	4 18.55	21 37 44.3	9 35.3	70.14	16 15.11
2	Sa	11 0.28	22.65	16 28 44.88	4 19.21	21 47 19.6	9 10.4	70.24	16 15.26
3	St	10 37.63	23.30	16 33 4.09	4 19.85	21 56 30.0	8 45.1	70.32	16 15.41
4	Mo	10 14.33	23.93	16 37 23.94	4 20.49	22 5 15.1	8 19.5	70.40	16 15.55
5	Di	9 50.40	24.52	16 41 44.43	4 21.08	22 13 34.6	7 53.7	70.48	16 15.69
6	Mi	+ 9 25.88	25.10	16 46 5.51	4 21.66	−22 21 28.3	7 27.7	70.56	16 15.82
7	Do	9 0.78	25.65	16 50 27.17	4 22.20	22 28 56.0	7 1.4	70.63	16 15.95
8	Fr	8 35.13	26.16	16 54 49.37	4 22.72	22 35 57.4	6 34.8	70.70	16 16.08
9	Sa	8 8.97	26.65	16 59 12.09	4 23.21	22 42 32.2	6 8.1	70.77	16 16.20
10	St	7 42.32	27.09	17 3 35.30	4 23.65	22 48 40.3	5 41.2	70.83	16 16.33
11	Mo	7 15.23	27.52	17 7 58.95	4 24.07	22 54 21.5	5 14.0	70.89	16 16.45
12	Di	+ 6 47.71	27.89	17 12 23.02	4 24.45	−22 59 35.5	4 46.7	70.95	16 16.56
13	Mi	6 19.82	28.24	17 16 47.47	4 24.80	23 4 22.2	4 19.3	71.00	16 16.67
14	Do	5 51.58	28.55	17 21 12.27	4 25.11	23 8 41.5	3 51.7	71.04	16 16.77
15	Fr	5 23.03	28.84	17 25 37.38	4 25.39	23 12 33.2	3 23.9	71.08	16 16.88
16	Sa	4 54.19	29.07	17 30 2.77	4 25.63	23 15 57.1	2 56.0	71.12	16 16.98
17	St	4 25.12	29.29	17 34 28.40	4 25.84	23 18 53.1	2 28.1	71.15	16 17.07
18	Mo	+ 3 55.83	29.46	17 38 54.24	4 26.02	−23 21 21.2	2 0.1	71.18	16 17.16
19	Di	3 26.37	29.60	17 43 20.26	4 26.16	23 23 21.3	1 32.0	71.20	16 17.25
20	Mi	2 56.77	29.71	17 47 46.42	4 26.27	23 24 53.3	1 3.7	71.22	16 17.34
21	Do	2 27.06	29.79	17 52 12.69	4 26.34	23 25 57.0	0 35.6	71.24	16 17.41
22	Fr	1 57.27	29.82	17 56 39.03	4 26.39	23 26 32.6	0 7.3	71.25	16 17.48
23	Sa	1 27.45	29.84	18 1 5.42	4 26.39	23 26 39.9	0 20.9	71.26	16 17.54
24	St	+ 0 57.61	29.81	18 5 31.81	4 26.37	−23 26 19.0	0 49.3	71.26	16 17.60
25	Mo	+ 0 27.80	29.77	18 9 58.18	4 26.32	23 25 29.7	1 17.5	71.25	16 17.66
26	Di	− 0 1.97	29.68	18 14 24.50	4 26.24	23 24 12.2	1 45.7	71.24	16 17.71
27	Mi	0 31.65	29.57	18 18 50.74	4 26.13	23 22 26.5	2 13.9	71.23	16 17.75
28	Do	1 1.22	29.43	18 23 16.87	4 25.99	23 20 12.6	2 42.0	71.22	16 17.78
29	Fr	1 30.65	29.26	18 27 42.86	4 25.82	23 17 30.6	3 10.1	71.19	16 17.81
30	Sa	− 1 59.91	29.07	18 32 8.68	4 25.62	−23 14 20.5	3 38.0	71.17	16 17.83
31	St	2 28.98	28.84	18 36 34.30	4 25.40	23 10 42.5	4 6.0	71.13	16 17.85
32	Mo	− 2 57.82		18 40 59.70		−23 6 36.5		71.09	16 17.85

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	kurzp. Gl.	Mittleres Äquinoktium 1939.0 Länge		Breite	log R		Aufgang (in +50° Breite, 0ʰ Länge)	Untergang (in +50° Breite, 0ʰ Länge)
1939	2429	h m s	in 0.001 s		° ′ ″	′ ″	in 0.″01			h m	h m
Nov. 24	591.5	4 8 12.712	+426	−11	240 47 31.6	60 39.1	+ 44	9.994 4332	837	7 25	16 7
25	592.5	4 12 9.268	426	−13	241 48 10.7	60 40.4	+ 31	9.994 3495	816	7 27	16 7
26	593.5	4 16 5.824	427	−13	242 48 51.1	60 41.6	+ 18	9.994 2679	793	7 28	16 6
27	594.5	4 20 2.380	428	−10	243 49 32.7	60 43.0	+ 7	9.994 1886	769	7 30	16 5
28	595.5	4 23 58.937	429	− 6	244 50 15.7	60 44.3	− 3	9.994 1117	745	7 31	16 4
29	596.5	4 27 55.493	430	0	245 51 0.0	60 45.6	− 10	9.994 0372	721	7 33	16 3
30	597.5	4 31 52.050	+431	+ 5	246 51 45.6	60 47.1	− 13	9.993 9651	698	7 34	16 3
Dez. 1	598.5	4 35 48.606	432	+ 9	247 52 32.7	60 48.6	− 13	9.993 8953	675	7 36	16 2
2	599.5	4 39 45.163	434	+10	248 53 21.3	60 50.0	− 10	9.993 8278	654	7 37	16 1
3	600.5	4 43 41.720	435	+ 9	249 54 11.3	60 51.5	− 5	9.993 7624	635	7 38	16 1
4	601.5	4 47 38.276	436	+ 6	250 55 2.8	60 52.9	+ 4	9.993 6989	615	7 39	16 0
5	602.5	4 51 34.833	438	+ 1	251 55 55.7	60 54.2	+ 15	9.993 6374	597	7 41	16 0
6	603.5	4 55 31.390	+439	− 4	252 56 49.9	60 55.5	+ 28	9.993 5777	581	7 42	15 59
7	604.5	4 59 27.947	441	− 8	253 57 45.4	60 56.8	+ 42	9.993 5196	565	7 43	15 59
8	605.5	5 3 24.504	443	− 9	254 58 42.2	60 58.0	+ 56	9.993 4631	551	7 44	15 59
9	606.5	5 7 21.061	444	− 8	255 59 40.2	60 59.0	+ 70	9.993 4080	537	7 45	15 59
10	607.5	5 11 17.618	446	− 5	257 0 39.2	61 0.0	+ 82	9.993 3543	522	7 46	15 58
11	608.5	5 15 14.175	448	− 1	258 1 39.2	61 0.8	+ 92	9.993 3021	507	7 47	15 58
12	609.5	5 19 10.733	+450	+ 4	259 2 40.0	61 1.6	+100	9.993 2514	493	7 48	15 58
13	610.5	5 23 7.290	452	+ 8	260 3 41.6	61 2.3	+106	9.993 2021	477	7 49	15 58
14	611.5	5 27 3.847	454	+11	261 4 43.9	61 2.9	+108	9.993 1544	461	7 50	15 58
15	612.5	5 31 0.404	456	+12	262 5 46.8	61 3.4	+107	9.993 1083	443	7 51	15 59
16	613.5	5 34 56.962	458	+11	263 6 50.2	61 3.8	+104	9.993 0640	425	7 52	15 59
17	614.5	5 38 53.519	460	+ 8	264 7 54.0	61 4.3	+ 99	9.993 0215	405	7 53	15 59
18	615.5	5 42 50.077	+462	+ 3	265 8 58.3	61 4.6	+ 90	9.992 9810	385	7 54	15 59
19	616.5	5 46 46.634	464	− 2	266 10 2.9	61 5.0	+ 80	9.992 9425	363	7 54	15 59
20	617.5	5 50 43.191	466	− 6	267 11 7.9	61 5.3	+ 69	9.992 9062	340	7 55	16 0
21	618.5	5 54 39.749	468	−11	268 12 13.2	61 5.5	+ 58	9.992 8722	316	7 55	16 0
22	619.5	5 58 36.306	470	−13	269 13 18.7	61 5.7	+ 45	9.992 8406	291	7 56	16 0
23	620.5	6 2 32.864	472	−14	270 14 24.4	61 6.0	+ 32	9.992 8115	264	7 56	16 1
24	621.5	6 6 29.421	+474	−12	271 15 30.4	61 6.2	+ 21	9.992 7851	237	7 57	16 2
25	622.5	6 10 25.978	476	− 8	272 16 36.6	61 6.5	+ 12	9.992 7614	209	7 57	16 2
26	623.5	6 14 22.536	478	− 2	273 17 43.1	61 6.8	+ 5	9.992 7405	180	7 58	16 3
27	624.5	6 18 19.093	480	+ 3	274 18 49.9	61 7.1	+ 1	9.992 7225	151	7 58	16 4
28	625.5	6 22 15.651	482	+ 8	275 19 57.0	61 7.4	− 1	9.992 7074	122	7 58	16 5
29	626.5	6 26 12.208	484	+11	276 21 4.4	61 7.9	0	9.992 6952	94	7 58	16 6
30	627.5	6 30 8.765	+486	+11	277 22 12.3	61 8.3	+ 5	9.992 6858	67	7 59	16 6
31	628.5	6 34 5.323	488	+ 8	278 23 20.6	61 8.6	+ 12	9.992 6791	41	7 59	16 7
32	629.5	6 38 1.880	+490	+ 3	279 24 29.2		+ 23	9.992 6750		7 59	16 8

0^h Welt-Zeit	Mittleres Äquinoktium 1939.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Jan. 0	+0.147 979	+17 262	−49	−3	−0.891 815	+ 2 575	+277	+1	−0.386 794	+1 116	+120	−1
1	0.165 241	17 210	52	+3	0.889 240	2 850	275	−2	0.385 678	1 235	119	−1
2	0.182 451	17 152	58	+1	0.886 390	3 126	276	+4	0.384 443	1 355	120	+5
3	0.199 603	17 089	63	+1	0.883 264	3 399	273	−3	0.383 088	1 474	119	+4
4	0.216 692	17 021	68	+1	0.879 865	3 671	272	−5	0.381 614	1 592	118	0
5	0.233 713	16 948	73	+2	0.876 194	3 942	271	−4	0.380 022	1 709	117	−3
6	+0.250 661	+16 871	−77	+5	−0.872 252	+ 4 212	+270	−3	−0.378 313	+1 827	+118	0
7	0.267 532	16 789	82	+4	0.868 040	4 480	268	−4	0.376 486	1 943	116	−4
8	0.284 321	16 702	87	+1	0.863 560	4 748	268	+2	0.374 543	2 059	116	−2
9	0.301 023	16 609	93	−5	0.858 812	5 015	267	+4	0.372 484	2 175	116	+2
10	0.317 632	16 512	97	−2	0.853 797	5 280	265	0	0.370 309	2 291	116	+4
11	0.334 144	16 410	102	0	0.848 517	5 544	264	−2	0.368 018	2 405	114	−3
12	+0.350 554	+16 303	−107	0	−0.842 973	+ 5 806	+262	−5	−0.365 613	+2 519	+114	−4
13	0.366 857	16 190	113	−4	0.837 167	6 067	261	−1	0.363 094	2 632	113	−5
14	0.383 047	16 072	118	−4	0.831 100	6 327	260	+3	0.360 462	2 744	112	−3
15	0.399 119	15 949	123	−3	0.824 773	6 584	257	0	0.357 718	2 857	113	+4
16	0.415 068	15 820	129	−3	0.818 189	6 840	256	+4	0.354 861	2 967	110	−2
17	0.430 888	15 687	133	+3	0.811 349	7 094	254	+5	0.351 894	3 077	110	+1
18	+0.446 575	+15 548	−139	+2	−0.804 255	+ 7 345	+251	+2	−0.348 817	+3 186	+109	+3
19	0.462 123	15 405	143	+4	0.796 910	7 594	249	+1	0.345 631	3 294	108	+3
20	0.477 528	15 255	150	−2	0.789 316	7 840	246	−1	0.342 337	3 401	107	+2
21	0.492 783	15 102	153	+3	0.781 476	8 084	244	+2	0.338 936	3 506	105	−2
22	0.507 885	14 943	159	0	0.773 392	8 325	241	+3	0.335 430	3 611	105	+1
23	0.522 828	14 779	164	−1	0.765 067	8 564	239	+4	0.331 819	3 714	103	−3
24	+0.537 607	+14 612	−167	+3	−0.756 503	+ 8 798	+234	−2	−0.328 105	+3 815	+101	−4
25	0.552 219	14 438	174	−4	0.747 705	9 031	233	+3	0.324 290	3 917	102	+3
26	0.566 657	14 261	177	0	0.738 674	9 260	229	−1	0.320 373	4 015	98	−4
27	0.580 918	14 080	181	+2	0.729 414	9 485	225	−5	0.316 358	4 113	98	+1
28	0.594 998	13 894	186	−1	0.719 929	9 707	222	−2	0.312 245	4 210	97	+4
29	0.608 892	13 704	190	−1	0.710 222	9 927	220	+4	0.308 035	4 305	95	+1
30	+0.622 596	+13 510	−194	0	−0.700 295	+10 142	+215	−1	−0.303 730	+4 398	+ 93	−3
31	0.636 106	13 313	197	+4	0.690 153	10 354	212	−1	0.299 332	4 490	92	−2
Febr. 1	0.649 419	13 112	201	+4	0.679 799	10 562	208	−1	0.294 842	4 581	91	0
2	0.662 531	12 908	204	+4	0.669 237	10 768	206	+5	0.290 261	4 670	89	−3
3	0.675 439	12 699	209	−2	0.658 469	10 970	202	+3	0.285 591	4 757	87	−5
4	0.688 138	12 488	211	+2	0.647 499	11 168	198	0	0.280 834	4 844	87	+1
5	+0.700 626	+12 273	−215	+2	−0.636 331	+11 364	+196	+4	−0.275 990	+4 929	+ 85	+1
6	0.712 899	12 055	218	+4	0.624 967	11 556	192	+3	0.271 061	5 013	84	+1
7	0.724 954	11 833	222	+4	0.613 411	11 745	189	+4	0.266 048	5 094	81	−4
8	0.736 787	11 608	225	+5	0.601 666	11 931	186	+5	0.260 954	5 175	81	+1
9	0.748 395	+11 379	229	+1	0.589 735	+12 113	182	+4	0.255 779	+5 255	80	+3
10	+0.759 774		−233	−4	−0.577 622		+179	+5	−0.250 524		+ 77	−4

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Welt-Zeit	Mittleres Äquinoktium 1939.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Febr. 10	+0.759 774	+11 146	−233	−4	−0.577 622	+12 292	+179	+5	−0.250 524	+5 332	+77	−4
11	0.770 920	10 909	237	−5	0.565 330	12 467	175	+4	0.245 192	5 407	75	−5
12	0.781 829	10 670	239	+2	0.552 863	12 639	172	+5	0.239 785	5 482	75	+4
13	0.792 499	10 427	243	+1	0.540 224	12 806	167	−1	0.234 303	5 555	73	+5
14	0.802 926	10 180	247	−2	0.527 418	12 969	163	−2	0.228 748	5 626	71	+2
15	0.813 106	9 930	250	−2	0.514 449	13 129	160	+2	0.223 122	5 694	68	−4
16	+0.823 036	+9 677	−253	−1	−0.501 320	+13 284	+155	0	−0.217 428	+5 762	+68	+1
17	0.832 713	9 421	256	0	0.488 036	13 435	151	−1	0.211 666	5 827	65	−3
18	0.842 134	9 162	259	−1	0.474 601	13 581	146	−3	0.205 839	5 890	63	−3
19	0.851 296	8 900	262	−3	0.461 020	13 723	142	0	0.199 949	5 952	62	+1
20	0.860 196	8 635	265	−5	0.447 297	13 861	138	+3	0.193 997	6 011	59	−1
21	0.868 831	8 367	268	−4	0.433 436	13 994	133	+1	0.187 986	6 069	58	+2
22	+0.877 198	+8 098	−269	+4	−0.419 442	+14 122	+128	−1	−0.181 917	+6 124	+55	0
23	0.885 296	7 827	271	+5	0.405 320	14 245	123	−2	0.175 793	6 178	54	+3
24	0.893 123	7 552	275	−3	0.391 075	14 364	119	+2	0.169 615	6 229	51	+2
25	0.900 675	7 276	276	−3	0.376 711	14 479	115	+4	0.163 386	6 279	50	+5
26	0.907 951	6 998	278	−3	0.362 232	14 587	108	−4	0.157 107	6 326	47	+3
27	0.914 949	6 719	279	−1	0.347 645	14 692	105	0	0.150 781	6 372	46	+4
28	+0.921 668	+6 438	−281	−3	−0.332 953	+14 791	+99	−2	−0.144 409	+6 415	+43	0
März 1	0.928 106	6 155	283	−4	0.318 162	14 887	96	+4	0.137 994	6 456	41	−1
2	0.934 261	5 872	283	+2	0.303 275	14 978	91	+2	0.131 538	6 496	40	+2
3	0.940 133	5 588	284	+3	0.288 297	15 063	85	−5	0.125 042	6 533	37	−1
4	0.945 721	5 302	286	−1	0.273 234	15 145	82	−2	0.118 509	6 569	36	+2
5	0.951 023	5 015	287	−2	0.258 089	15 222	77	−1	0.111 940	6 603	34	+1
6	+0.956 038	+4 727	−288	−1	−0.242 867	+15 296	+74	+5	−0.105 337	+6 634	+31	−2
7	0.960 765	4 438	289	−1	0.227 571	15 365	69	+3	0.098 703	6 665	31	+3
8	0.965 203	4 147	291	−3	0.212 206	15 429	64	+1	0.092 038	6 692	27	−1
9	0.969 350	3 856	291	+1	0.196 777	15 490	61	+5	0.085 346	6 719	27	+5
10	0.973 206	3 563	293	−1	0.181 287	15 546	56	+2	0.078 627	6 743	24	+3
11	0.976 769	3 269	294	−1	0.165 741	15 597	51	−2	0.071 884	6 766	23	+4
12	+0.980 038	+2 974	−295	−2	−0.150 144	+15 643	+46	−3	−0.065 118	+6 785	+19	−3
13	0.983 012	2 677	297	−4	0.134 501	15 686	43	+2	0.058 333	6 804	19	+1
14	0.985 689	2 381	296	+3	0.118 815	15 722	36	−3	0.051 529	6 819	15	−4
15	0.988 070	2 083	298	+1	0.103 093	15 755	33	+4	0.044 710	6 834	15	+1
16	0.990 153	1 785	298	+1	0.087 338	15 783	28	+5	0.037 876	6 845	11	−5
17	0.991 938	1 486	299	−2	0.071 555	15 805	22	+1	0.031 031	6 855	10	−2
18	+0.993 424	+1 186	−300	−5	−0.055 750	+15 823	+18	+2	−0.024 176	+6 862	+7	−3
19	0.994 610	887	299	0	0.039 927	15 835	12	−1	0.017 314	6 868	6	0
20	0.995 497	587	300	−2	0.024 092	15 843	8	+3	0.010 446	6 871	3	−3
21	0.996 084	+ 287	300	−1	−0.008 249	15 846	+ 3	+3	−0.003 575	6 872	+ 1	−3
22	0.996 371	− 12	299	+2	+0.007 597	+15 843	− 3	−1	+0.003 297	+6 870	− 2	−4
23	+0.996 359		−299	0	+0.023 440		− 8	−1	+0.010 167		− 2	+4

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Welt-Zeit		Mittleres Äquinoktium 1939.0 X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939													
März	23	+0.996 359	− 311	−299	0	+0.023 440	+15 835	− 8	−1	+0.010 167	+6 868	− 2	+4
	24	0.996 048	611	300	−4	0.039 275	15 823	12	+4	0.017 035	6 862	6	−2
	25	0.995 437	908	297	+4	0.055 098	15 805	18	+3	0.023 897	6 854	8	−3
	26	0.994 529	1 205	297	0	0.070 903	15 783	22	+5	0.030 751	6 845	9	0
	27	0.993 324	1 502	297	−5	0.086 686	15 755	28	+2	0.037 596	6 832	13	−4
	28	0.991 822	1 797	295	−3	0.102 441	15 724	31	+4	0.044 428	6 819	13	+4
	29	+0.990 025	− 2 091	−294	−3	+0.118 165	+15 686	− 38	−4	+0.051 247	+6 804	−15	+5
	30	0.987 934	2 384	293	−2	0.133 851	15 645	41	0	0.058 051	6 785	19	−3
	31	0.985 550	2 675	291	+2	0.149 496	15 600	45	+1	0.064 836	6 766	19	+3
April	1	0.982 875	2 965	290	+3	0.165 096	15 549	51	−4	0.071 602	6 745	21	+3
	2	0.979 910	3 253	288	+4	0.180 645	15 496	53	+3	0.078 347	6 721	24	−3
	3	0.976 657	3 541	288	−2	0.196 141	15 437	59	−2	0.085 068	6 696	25	−2
	4	+0.973 116	− 3 827	−286	−1	+0.211 578	+15 375	− 62	−1	+0.091 764	+6 669	−27	−2
	5	0.969 289	4 112	285	−3	0.226 953	15 308	67	−2	0.098 433	6 640	29	−2
	6	0.965 177	4 396	284	−4	0.242 261	15 238	70	+4	0.105 073	6 610	30	+1
	7	0.960 781	4 678	282	−1	0.257 499	15 163	75	+3	0.111 683	6 577	33	−3
	8	0.956 103	4 960	282	−3	0.272 662	15 084	79	+4	0.118 260	6 543	34	−1
	9	0.951 143	5 239	279	+3	0.287 746	15 001	83	+5	0.124 803	6 506	37	−3
	10	+0.945 904	− 5 518	−279	0	+0.302 747	+14 913	− 88	+3	+0.131 309	+6 469	−37	+3
	11	0.940 386	5 794	276	+3	0.317 660	14 822	91	+4	0.137 778	6 428	41	−2
	12	0.934 592	6 070	276	−2	0.332 482	14 724	98	−4	0.144 206	6 387	41	+2
	13	0.928 522	6 343	273	+1	0.347 206	14 624	100	+3	0.150 593	6 342	45	−3
	14	0.922 179	6 615	272	0	0.361 830	14 519	105	+3	0.156 935	6 297	45	+3
	15	0.915 564	6 884	269	+2	0.376 349	14 409	110	+1	0.163 232	6 249	48	+1
	16	+0.908 680	− 7 152	−268	−1	+0.390 758	+14 296	−113	+4	+0.169 481	+6 200	−49	+3
	17	0.901 528	7 417	265	+2	0.405 054	14 177	119	−3	0.175 681	6 148	52	0
	18	0.894 111	7 680	263	+2	0.419 231	14 054	123	−2	0.181 829	6 095	53	+3
	19	0.886 431	7 940	260	+4	0.433 285	13 928	126	+2	0.187 924	6 040	55	+3
	20	0.878 491	8 198	258	+1	0.447 213	13 796	132	−4	0.193 964	5 983	57	+1
	21	0.870 293	8 453	255	+1	0.461 009	13 660	136	−4	0.199 947	5 924	59	−1
	22	+0.861 840	− 8 705	−252	+2	+0.474 669	+13 521	−139	+1	+0.205 871	+5 864	−60	0
	23	0.853 135	8 953	248	+3	0.488 190	13 377	144	0	0.211 735	5 801	63	−4
	24	0.844 182	9 199	246	−3	0.501 567	13 230	147	+2	0.217 536	5 738	63	0
	25	0.834 983	9 442	243	−5	0.514 797	13 078	152	−1	0.223 274	5 672	66	−5
	26	0.825 541	9 681	239	−1	0.527 875	12 924	154	+4	0.228 946	5 605	67	−4
	27	0.815 860	9 916	235	+4	0.540 799	12 765	159	0	0.234 551	5 536	69	−3
	28	+0.805 944	−10 148	−232	+2	+0.553 564	+12 604	−161	+4	+0.240 087	+5 467	−69	+4
	29	0.795 796	10 378	230	−3	0.566 168	12 439	165	+2	0.245 554	5 396	71	+2
	30	0.785 418	10 603	225	+2	0.578 607	12 272	167	+3	0.250 950	5 323	73	−3
Mai	1	0.774 815	10 825	222	+1	0.590 879	12 100	172	−4	0.256 273	5 248	75	−4
	2	0.763 990	−11 045	220	−4	0.602 979	+11 927	173	+1	0.261 521	+5 174	74	+4
	3	+0.752 945		−216	−2	+0.614 906		−177	−2	+0.266 695		−77	−1

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Welt-Zeit	Mittleres Äquinoktium 1939.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Mai 3	+0.752 945	−11 261	−216	−2	+0.614 906	+11 750	−177	−2	+0.266 695	+5 097	− 77	−1
4	0.741 684	11 474	213	0	0.626 656	11 570	180	−3	0.271 792	5 019	78	−2
5	0.730 210	11 683	209	+3	0.638 226	11 387	183	−2	0.276 811	4 939	80	−4
6	0.718 527	11 890	207	−3	0.649 613	11 202	185	+2	0.281 750	4 859	80	+1
7	0.706 637	12 094	204	−5	0.660 815	11 012	190	−2	0.286 609	4 777	82	0
8	0.694 543	12 294	200	−2	0.671 827	10 821	191	+5	0.291 386	4 693	84	−2
9	+0.682 249	−12 490	−196	0	+0.682 648	+10 626	−195	+2	+0.296 079	+4 609	− 84	+2
10	0.669 759	12 684	194	−5	0.693 274	10 428	198	0	0.300 688	4 523	86	0
11	0.657 075	12 874	190	−3	0.703 702	10 226	202	−3	0.305 211	4 435	88	−3
12	0.644 201	13 060	186	+1	0.713 928	10 023	203	+3	0.309 646	4 346	89	−1
13	0.631 141	13 242	182	+5	0.723 951	9 815	208	−2	0.313 992	4 257	89	+5
14	0.617 899	13 420	178	+4	0.733 766	9 606	209	+3	0.318 249	4 166	91	+2
15	+0.604 479	−13 596	−176	−3	+0.743 372	+ 9 392	−214	−3	+0.322 415	+4 073	− 93	−3
16	0.590 883	13 766	170	+3	0.752 764	9 177	215	+2	0.326 488	3 979	94	−3
17	0.577 117	13 932	166	+2	0.761 941	8 958	219	−1	0.330 467	3 885	94	+1
18	0.563 185	14 095	163	−4	0.770 899	8 737	221	−1	0.334 352	3 788	97	−4
19	0.549 090	14 253	158	−3	0.779 636	8 512	225	−5	0.338 140	3 692	96	+1
20	0.534 837	14 406	153	0	0.788 148	8 286	226	0	0.341 832	3 593	99	−5
21	+0.520 431	−14 555	−149	0	+0.796 434	+ 8 057	−229	0	+0.345 425	+3 494	− 99	−3
22	0.505 876	14 699	144	+2	0.804 491	7 826	231	+1	0.348 919	3 394	100	−3
23	0.491 177	14 838	139	+5	0.812 317	7 593	233	0	0.352 313	3 293	101	−5
24	0.476 339	14 972	134	+4	0.819 910	7 358	235	−2	0.355 606	3 191	102	−5
25	0.461 367	15 103	131	−4	0.827 268	7 121	237	−4	0.358 797	3 089	102	−2
26	0.446 264	15 229	126	−3	0.834 389	6 883	238	−1	0.361 886	2 985	104	−4
27	+0.431 035	−15 349	−120	+4	+0.841 272	+ 6 643	−240	−2	+0.364 871	+2 882	−103	+2
28	0.415 686	15 465	116	+3	0.847 915	6 402	241	0	0.367 753	2 777	105	0
29	0.400 221	15 578	113	−3	0.854 317	6 160	242	+2	0.370 530	2 673	104	+4
30	0.384 643	15 686	108	−1	0.860 477	5 916	244	0	0.373 203	2 566	107	−3
31	0.368 957	15 789	103	+4	0.866 393	5 671	245	+1	0.375 769	2 461	105	+3
Juni 1	0.353 168	15 888	99	+4	0.872 064	5 425	246	+2	0.378 230	2 353	108	−3
2	+0.337 280	−15 983	− 95	+1	+0.877 489	+ 5 178	−247	+2	+0.380 583	+2 246	−107	+3
3	0.321 297	16 075	92	−3	0.882 667	4 928	250	−3	0.382 829	2 138	108	+4
4	0.305 222	16 161	86	+4	0.887 595	4 679	249	+4	0.384 967	2 030	108	+5
5	0.289 061	16 243	82	+5	0.892 274	4 427	252	−1	0.386 997	1 920	110	0
6	0.272 818	16 321	78	+3	0.896 701	4 175	252	+1	0.388 917	1 811	109	+3
7	0.256 497	16 395	74	0	0.900 876	3 920	255	−4	0.390 728	1 700	111	−1
8	+0.240 102	−16 464	− 69	+2	+0.904 796	+ 3 666	−254	+1	+0.392 428	+1 590	−110	+2
9	0.223 638	16 528	64	+3	0.908 462	3 409	257	−5	0.394 018	1 478	112	−3
10	0.207 110	16 588	60	−1	0.911 871	3 151	258	−4	0.395 496	1 366	112	−1
11	0.190 522	16 644	56	−5	0.915 022	2 894	257	+4	0.396 862	1 254	112	+3
12	0.173 878	−16 695	51	−4	0.917 916	+ 2 633	261	−4	0.398 116	+1 142	112	+5
13	+0.157 183		− 45	+1	+0.920 549		−260	+1	+0.399 258		−113	+1

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Welt-Zeit	Mittleres Äquinoktium 1939.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Juni 13	+0.157 183	−16 740	− 45	+1	+0.920 549	+2 373	−260	+1	+0.399 258	+1 029	−113	+1
14	0.140 443	16 781	41	−2	0.922 922	2 112	261	+1	0.400 287	915	114	−4
15	0.123 662	16 818	37	−5	0.925 034	1 849	263	−4	0.401 202	801	114	−3
16	0.106 844	16 848	30	+1	0.926 883	1 586	263	−2	0.402 003	687	114	0
17	0.089 996	16 874	26	−3	0.928 469	1 323	263	0	0.402 690	573	114	+3
18	0.073 122	16 895	21	−3	0.929 792	1 058	265	−4	0.403 263	459	114	+4
19	+0.056 227	−16 910	− 15	+2	+0.930 850	+ 795	−263	+3	+0.403 722	+ 345	−114	+2
20	0.039 317	16 920	10	+2	0.931 645	530	265	−3	0.404 067	230	115	−4
21	0.022 397	16 925	− 5	+1	0.932 175	266	264	0	0.404 297	115	115	−4
22	+0.005 472	16 925	0	+1	0.932 441	+ 3	263	+3	0.404 412	+ 2	113	+3
23	−0.011 453	16 920	+ 5	0	0.932 444	− 261	264	0	0.404 414	− 113	115	−2
24	0.028 373	16 911	9	−2	0.932 183	523	262	+5	0.404 301	226	113	+2
25	−0.045 284	−16 896	+ 15	+4	+0.931 660	− 785	−262	+2	+0.404 075	− 340	−114	−1
26	0.062 180	16 877	19	+4	0.930 875	1 047	262	−2	0.403 735	453	113	−1
27	0.079 057	16 853	24	+4	0.929 828	1 308	261	−2	0.403 282	567	114	−5
28	0.095 910	16 825	28	−1	0.928 520	1 568	260	−1	0.402 715	680	113	−1
29	0.112 735	16 793	32	−5	0.926 952	1 828	260	−3	0.402 035	792	112	+4
30	0.129 528	16 757	36	−4	0.925 124	2 087	259	−1	0.401 243	904	112	+2
Juli 1	−0.146 285	−16 715	+ 42	+4	+0.923 037	−2 345	−258	0	+0.400 339	−1 017	−113	−5
2	0.163 000	16 669	46	+5	0.920 692	2 604	259	−4	0.399 322	1 129	112	−3
3	0.179 669	16 620	49	0	0.918 088	2 860	256	+4	0.398 193	1 241	112	−2
4	0.196 289	16 565	55	+4	0.915 228	3 117	257	0	0.396 952	1 352	111	+3
5	0.212 854	16 506	59	+3	0.912 111	3 373	256	0	0.395 600	1 463	111	+4
6	0.229 360	16 443	63	0	0.908 738	3 628	255	+3	0.394 137	1 574	111	+3
7	−0.245 803	−16 375	+ 68	−1	+0.905 110	−3 882	−254	+4	+0.392 563	−1 684	−110	+5
8	0.262 178	16 303	72	−3	0.901 228	4 136	254	+1	0.390 879	1 794	110	+2
9	0.278 481	16 226	77	−2	0.897 092	4 388	252	+2	0.389 085	1 904	110	−2
10	0.294 707	16 145	81	−2	0.892 704	4 641	253	−3	0.387 181	2 014	110	−2
11	0.310 852	16 058	87	+2	0.888 063	4 891	250	+3	0.385 167	2 122	108	+5
12	0.326 910	15 968	90	−2	0.883 172	5 141	250	+2	0.383 045	2 230	108	+4
13	−0.342 878	−15 872	+ 96	+3	+0.878 031	−5 389	−248	+3	+0.380 815	−2 338	−108	+1
14	0.358 750	15 771	101	+4	0.872 642	5 637	248	−3	0.378 477	2 445	107	−1
15	0.374 521	15 666	105	0	0.867 005	5 883	246	−2	0.376 032	2 552	107	−4
16	0.390 187	15 556	110	−1	0.861 122	6 127	244	−1	0.373 480	2 658	106	−3
17	0.405 743	15 440	116	+2	0.854 995	6 370	243	−3	0.370 822	2 763	105	+1
18	0.421 183	15 321	119	−3	0.848 625	6 610	240	+1	0.368 059	2 866	103	+4
19	−0.436 504	−15 196	+125	0	+0.842 015	−6 849	−239	−1	+0.365 193	−2 970	−104	−4
20	0.451 700	15 067	129	−1	0.835 166	7 084	235	+3	0.362 223	3 073	103	−5
21	0.466 767	14 934	133	−1	0.828 082	7 319	235	−4	0.359 150	3 173	100	+2
22	0.481 701	14 796	138	+2	0.820 763	7 550	231	+2	0.355 977	3 274	101	−3
23	0.496 497	−14 654	142	+2	0.813 213	−7 778	228	+4	0.352 703	−3 373	99	−1
24	−0.511 151		+145	−1	+0.805 435		−227	−3	+0.349 330		− 98	−1

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0^h Welt-Zeit	Mittleres Äquinoktium 1939.0											
	X			ΔX*)	*Y*			ΔY*)	*Z*			ΔZ*)
1939												
Juli 24	−0.511 151	−14 509	+145	−1	+0.805 435	−8 005	−227	−3	+0.349 330	−3 471	−98	−1
25	0.525 660	14 359	150	+2	0.797 430	8 229	224	−3	0.345 859	3 569	98	−3
26	0.540 019	14 206	153	−1	0.789 201	8 451	222	−3	0.342 290	3 664	95	+3
27	0.554 225	14 049	157	−1	0.780 750	8 670	219	+2	0.338 626	3 760	96	−2
28	0.568 274	13 889	160	−2	0.772 080	8 886	216	+5	0.334 866	3 854	94	0
29	0.582 163	13 724	165	+4	0.763 194	9 101	215	+2	0.331 012	3 947	93	+2
30	−0.595 887	−13 556	+168	+3	+0.754 093	−9 312	−211	+5	+0.327 065	−4 039	−92	+3
31	0.609 443	13 385	171	+1	0.744 781	9 522	210	−1	0.323 026	4 130	91	+3
Aug. 1	0.622 828	13 209	176	+5	0.735 259	9 729	207	−2	0.318 896	4 220	90	+3
2	0.636 037	13 031	178	+1	0.725 530	9 934	205	−5	0.314 676	4 308	88	+4
3	0.649 068	12 848	183	+5	0.715 596	10 136	202	−3	0.310 368	4 397	89	−4
4	0.661 916	12 662	186	+4	0.705 460	10 336	200	−3	0.305 971	4 483	86	0
5	−0.674 578	−12 472	+190	+3	+0.695 124	−10 533	−197	+1	+0.301 488	−4 569	−86	−3
6	0.687 050	12 279	193	−1	0.684 591	10 727	194	+4	0.296 919	4 653	84	−1
7	0.699 329	12 082	197	−1	0.673 864	10 919	192	+2	0.292 266	4 737	84	−3
8	0.711 411	11 882	200	−2	0.662 945	11 108	189	+3	0.287 529	4 818	81	+3
9	0.723 293	11 677	205	+5	0.651 837	11 294	186	+3	0.282 711	4 899	81	−1
10	0.734 970	11 469	208	+5	0.640 543	11 478	184	0	0.277 812	4 979	80	−2
11	−0.746 439	−11 257	+212	+5	+0.629 065	−11 658	−180	+3	+0.272 833	−5 056	−77	+2
12	0.757 696	11 041	216	+3	0.617 407	11 835	177	+2	0.267 777	5 134	78	−4
13	0.768 737	10 822	219	−2	0.605 572	12 009	174	−2	0.262 643	5 209	75	+2
14	0.779 559	10 600	222	−5	0.593 563	12 180	171	−5	0.257 434	5 282	73	+5
15	0.790 159	10 373	227	0	0.581 383	12 346	166	−1	0.252 152	5 355	73	+1
16	0.800 532	10 143	230	0	0.569 037	12 510	164	−5	0.246 797	5 425	70	+5
17	−0.810 675	−9 911	+232	−3	+0.556 527	−12 668	−158	+1	+0.241 372	−5 494	−69	+5
18	0.820 586	9 674	237	+4	0.543 859	12 824	156	−3	0.235 878	5 561	67	+5
19	0.830 260	9 436	238	0	0.531 035	12 974	150	+1	0.230 317	5 626	65	+4
20	0.839 696	9 194	242	+2	0.518 061	13 122	148	−5	0.224 691	5 691	65	−2
21	0.848 890	8 951	243	−3	0.504 939	13 265	143	−2	0.219 000	5 752	61	+4
22	0.857 841	8 705	246	−1	0.491 674	13 404	139	0	0.213 248	5 813	61	−1
23	−0.866 546	−8 456	+249	+2	+0.478 270	−13 539	−135	0	+0.207 435	−5 872	−59	−1
24	0.875 002	8 206	250	0	0.464 731	13 671	132	−5	0.201 563	5 929	57	+1
25	0.883 208	7 952	254	+4	0.451 060	13 799	128	−5	0.195 634	5 984	55	+2
26	0.891 160	7 698	254	−3	0.437 261	13 923	124	−4	0.189 650	6 039	55	−4
27	0.898 858	7 441	257	−1	0.423 338	14 043	120	−3	0.183 611	6 091	52	+1
28	0.906 299	7 181	260	+2	0.409 295	14 160	117	−4	0.177 520	6 141	50	+4
29	−0.913 480	−6 921	+260	−3	+0.395 135	−14 272	−112	+1	+0.171 379	−6 190	−49	0
30	0.920 401	6 657	264	+4	0.380 863	14 381	109	−1	0.165 189	6 238	48	−5
31	0.927 058	6 392	265	+3	0.366 482	14 486	105	−2	0.158 951	6 284	46	−3
Sept. 1	0.933 450	6 124	268	+5	0.351 996	14 588	102	−5	0.152 667	6 327	43	+3
2	0.939 574	−5 856	268	−2	0.337 408	−14 685	97	0	0.146 340	−6 370	43	−2
3	−0.945 430		+272	+4	+0.322 723		−94	−1	+0.139 970		−41	0

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0^h Welt-Zeit	Mittleres Äquinoktium 1939.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Sept. 3	−0.945 430	−5 584	+272	+4	+0.322 723	−14 779	−94	−1	+0.139 970	−6 411	−41	0
4	0.951 014	5 311	273	+2	0.307 944	14 868	89	+2	0.133 559	6 449	38	+5
5	0.956 325	5 036	275	0	0.293 076	14 954	86	−1	0.127 110	6 486	37	+2
6	0.961 361	4 759	277	−2	0.278 122	15 036	82	−1	0.120 624	6 522	36	−2
7	0.966 120	4 481	278	−4	0.263 086	15 113	77	+2	0.114 102	6 555	33	0
8	0.970 601	4 199	282	+3	0.247 973	15 187	74	−2	0.107 547	6 587	32	−3
9	−0.974 800	−3 917	+282	−3	+0.232 786	−15 256	−69	0	+0.100 960	−6 617	−30	−2
10	0.978 717	3 633	284	−2	0.217 530	15 320	64	+2	0.094 343	6 645	28	0
11	0.982 350	3 346	287	+4	0.202 210	15 380	60	−2	0.087 698	6 670	25	+4
12	0.985 696	3 059	287	0	0.186 830	15 436	56	−5	0.081 028	6 694	24	0
13	0.988 755	2 770	289	+2	0.171 394	15 486	50	−1	0.074 334	6 716	22	−2
14	0.991 525	2 479	291	+4	0.155 908	15 531	45	0	0.067 618	6 736	20	0
15	−0.994 004	−2 189	+290	−4	+0.140 377	−15 572	−41	−3	+0.060 882	−6 753	−17	+5
16	0.996 193	1 897	292	−2	0.124 805	15 608	36	−2	0.054 129	6 768	15	+4
17	0.998 090	1 605	292	−4	0.109 197	15 638	30	+4	0.047 361	6 782	14	−1
18	0.999 695	1 313	292	−5	0.093 559	15 664	26	+2	0.040 579	6 793	11	+1
19	1.001 008	1 020	293	0	0.077 895	15 686	22	0	0.033 786	6 803	10	−1
20	1.002 028	727	293	+2	0.062 209	15 702	16	+5	0.026 983	6 809	6	+4
21	−1.002 755	− 434	+293	+3	+0.046 507	−15 714	−12	+3	+0.020 174	−6 816	− 7	−4
22	1.003 189	− 140	294	+5	0.030 793	15 722	8	0	0.013 358	6 818	2	+3
23	1.003 329	+ 152	292	−3	+0.015 071	15 725	− 3	+2	+0.006 540	6 821	− 3	−4
24	1.003 177	446	294	0	−0.000 654	15 724	+ 1	+1	−0.000 281	6 819	+ 2	+4
25	1.002 731	738	292	−5	0.016 378	15 718	6	+4	0.007 100	6 818	1	−4
26	1.001 993	1 031	293	−1	0.032 096	15 708	10	+3	0.013 918	6 813	5	+1
27	−1.000 962	+1 324	+293	+2	−0.047 804	−15 693	+15	+4	−0.020 731	−6 807	+ 6	−1
28	0.999 638	1 617	293	+2	0.063 497	15 675	18	−2	0.027 538	6 799	8	−2
29	0.998 021	1 908	291	−3	0.079 172	15 652	23	0	0.034 337	6 789	10	−2
30	0.996 113	2 201	293	+5	0.094 824	15 624	28	+3	0.041 126	6 777	12	−2
Okt. 1	0.993 912	2 493	292	+3	0.110 448	15 593	31	0	0.047 903	6 764	13	−4
2	0.991 419	2 784	291	−1	0.126 041	15 556	37	+5	0.054 667	6 748	16	+2
3	−0.988 635	+3 075	+291	0	−0.141 597	−15 516	+40	+1	−0.061 415	−6 730	+18	+5
4	0.985 560	3 366	291	+3	0.157 113	15 471	45	+3	0.068 145	6 710	20	+5
5	0.982 194	3 657	291	+4	0.172 584	15 421	50	+5	0.074 855	6 689	21	+1
6	0.978 537	3 947	290	0	0.188 005	15 367	54	+1	0.081 544	6 665	24	+3
7	0.974 590	4 236	289	−4	0.203 372	15 309	58	−3	0.088 209	6 639	26	+2
8	0.970 354	4 525	289	−2	0.218 681	15 245	64	+1	0.094 848	6 612	27	−3
9	−0.965 829	+4 813	+288	−2	−0.233 926	−15 177	+68	0	−0.101 460	−6 582	+30	0
10	0.961 016	5 100	287	−1	0.249 103	15 103	74	+3	0.108 042	6 550	32	0
11	0.955 916	5 387	287	+2	0.264 206	15 025	78	−1	0.114 592	6 516	34	−1
12	0.950 529	5 671	284	−4	0.279 231	14 942	83	−3	0.121 108	6 480	36	−1
13	0.944 858	+5 954	283	−3	0.294 173	−14 854	88	−3	0.127 588	−6 442	38	0
14	−0.938 904		+282	0	−0.309 027		+93	−1	−0.134 030		+41	+4

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Welt-Zeit	Mittleres Äquinoktium 1939.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Okt. 14	−0.938 904	+ 6 236	+282	0	−0.309 027	−14 761	+ 93	−1	−0.134 030	−6 401	+ 41	+4
15	0.932 668	6 515	279	−3	0.323 788	14 663	98	+2	0.140 431	6 359	42	+2
16	0.926 153	6 792	277	−2	0.338 451	14 560	103	+2	0.146 790	6 314	45	+4
17	0.919 361	7 068	276	+4	0.353 011	14 453	107	−2	0.153 104	6 268	46	−1
18	0.912 293	7 341	273	+2	0.367 464	14 342	111	−4	0.159 372	6 220	48	−3
19	0.904 952	7 611	270	−2	0.381 806	14 226	116	−2	0.165 592	6 170	50	−2
20	−0.897 341	+ 7 880	+269	+1	−0.396 032	−14 106	+120	−3	−0.171 762	−6 118	+ 52	−1
21	0.889 461	8 145	265	−3	0.410 138	13 982	124	−4	0.177 880	6 064	54	−1
22	0.881 316	8 409	264	+1	0.424 120	13 854	128	−3	0.183 944	6 009	55	−4
23	0.872 907	8 670	261	0	0.437 974	13 721	133	+1	0.189 953	5 952	57	−2
24	0.864 237	8 928	258	−1	0.451 695	13 585	136	−2	0.195 905	5 892	60	+3
25	0.855 309	9 185	257	+3	0.465 280	13 445	140	−3	0.201 797	5 832	60	−3
26	−0.846 124	+ 9 437	+252	−4	−0.478 725	−13 301	+144	−1	−0.207 629	−5 769	+ 63	−1
27	0.836 687	9 689	252	+2	0.492 026	13 153	148	+2	0.213 398	5 706	63	−4
28	0.826 998	9 936	247	−4	0.505 179	13 001	152	+5	0.219 104	5 639	67	+3
29	0.817 062	10 182	246	+2	0.518 180	12 845	156	+4	0.224 743	5 572	67	−1
30	0.806 880	10 425	243	+3	0.531 025	12 687	158	−3	0.230 315	5 503	69	−1
31	0.796 455	10 666	241	+3	0.543 712	12 523	164	+2	0.235 818	5 432	71	0
Nov. 1	−0.785 789	+10 903	+237	−4	−0.556 235	−12 357	+166	−2	−0.241 250	−5 360	+ 72	0
2	0.774 886	11 137	234	−5	0.568 592	12 186	171	+2	0.246 610	5 285	75	+3
3	0.763 749	11 370	233	+4	0.580 778	12 011	175	+1	0.251 895	5 210	75	−2
4	0.752 379	11 599	229	+3	0.592 789	11 833	178	−4	0.257 105	5 132	78	+3
5	0.740 780	11 826	227	+3	0.604 622	11 651	182	−5	0.262 237	5 053	79	+3
6	0.728 954	12 048	222	−4	0.616 273	11 465	186	−2	0.267 290	4 971	82	+5
7	−0.716 906	+12 268	+220	−1	−0.627 738	−11 274	+191	+4	−0.272 261	−4 889	+ 82	−3
8	0.704 638	12 484	216	−1	0.639 012	11 079	195	+5	0.277 150	4 805	84	−4
9	0.692 154	12 697	213	0	0.650 091	10 881	198	+1	0.281 955	4 718	87	+1
10	0.679 457	12 905	208	−4	0.660 972	10 679	202	−1	0.286 673	4 631	87	−5
11	0.666 552	13 109	204	−3	0.671 651	10 473	206	−2	0.291 304	4 542	89	−4
12	0.653 443	13 310	201	+3	0.682 124	10 264	209	−4	0.295 846	4 451	91	−2
13	−0.640 133	+13 506	+196	+2	−0.692 388	−10 051	+213	−1	−0.300 297	−4 359	+ 92	−1
14	0.626 627	13 698	192	+1	0.702 439	9 834	217	+2	0.304 656	4 265	94	+3
15	0.612 929	13 885	187	−3	0.712 273	9 616	218	−4	0.308 921	4 170	95	+2
16	0.599 044	14 067	182	−5	0.721 889	9 393	223	+2	0.313 091	4 074	96	+1
17	0.584 977	14 246	179	−1	0.731 282	9 168	225	+1	0.317 165	3 976	98	+3
18	0.570 731	14 419	173	−4	0.740 450	8 940	228	+1	0.321 141	3 878	98	−1
19	−0.556 312	+14 589	+170	+2	−0.749 390	− 8 710	+230	0	−0.325 019	−3 777	+101	+3
20	0.541 723	14 754	165	0	0.758 100	8 476	234	+4	0.328 796	3 677	100	−5
21	0.526 969	14 914	160	−4	0.766 576	8 241	235	−1	0.332 473	3 575	102	−4
22	0.512 055	15 069	155	−4	0.774 817	8 003	238	0	0.336 048	3 472	103	−2
23	0.496 986	+15 221	152	+3	0.782 820	− 7 763	240	0	0.339 520	−3 367	105	+2
24	−0.481 765		+147	+2	−0.790 583		+243	+3	−0.342 887		+104	−2

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Welt-Zeit	Mittleres Äquinoktium 1939.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Nov. 24	−0.481 765	+15 368	+147	+2	−0.790 583	−7 520	+243	+3	−0.342 887	−3 263	+104	−2
25	0.466 397	15 510	142	−2	0.798 103	7 275	245	+2	0.346 150	3 156	107	+5
26	0.450 887	15 647	137	−3	0.805 378	7 029	246	−3	0.349 306	3 049	107	+3
27	0.435 240	15 782	135	+4	0.812 407	6 780	249	−1	0.352 355	2 941	108	+2
28	0.419 458	15 910	128	−4	0.819 187	6 529	251	−1	0.355 296	2 832	109	+1
29	0.403 548	16 034	124	−4	0.825 716	6 276	253	−1	0.358 128	2 722	110	0
30	−0.387 514	+16 155	+121	0	−0.831 992	−6 021	+255	−2	−0.360 850	−2 612	+110	−2
Dez. 1	0.371 359	16 270	115	−4	0.838 013	5 764	257	−3	0.363 462	2 499	113	+3
2	0.355 089	16 381	111	−2	0.843 777	5 505	259	−1	0.365 961	2 387	112	−4
3	0.338 708	16 487	106	−3	0.849 282	5 243	262	+4	0.368 348	2 274	113	−5
4	0.322 221	16 588	101	−3	0.854 525	4 979	264	+4	0.370 622	2 159	115	0
5	0.305 633	16 685	97	0	0.859 504	4 714	265	0	0.372 781	2 044	115	−1
6	−0.288 948	+16 775	+ 90	−4	−0.864 218	−4 446	+268	+3	−0.374 825	−1 927	+117	+2
7	0.272 173	16 862	87	+2	0.868 664	4 177	269	+1	0.376 752	1 811	116	−5
8	0.255 311	16 942	80	−4	0.872 841	3 905	272	+4	0.378 563	1 693	118	−3
9	0.238 369	17 016	74	−5	0.876 746	3 633	272	−1	0.380 256	1 575	118	−4
10	0.221 353	17 086	70	+2	0.880 379	3 359	274	+1	0.381 831	1 457	118	−4
11	0.204 267	17 150	64	+2	0.883 738	3 083	276	+5	0.383 288	1 336	121	+4
12	−0.187 117	+17 207	+ 57	−2	−0.886 821	−2 806	+277	+4	−0.384 624	−1 217	+119	−4
13	0.169 910	17 260	53	+3	0.889 627	2 530	276	−3	0.385 841	1 097	120	−3
14	0.152 650	17 306	46	+1	0.892 157	2 251	279	+4	0.386 938	977	120	−2
15	0.135 344	17 348	42	+5	0.894 408	1 972	279	+2	0.387 915	855	122	+3
16	0.117 996	17 383	35	+1	0.896 380	1 694	278	−4	0.388 770	735	120	−4
17	0.100 613	17 413	30	+1	0.898 074	1 414	280	+2	0.389 505	614	121	−1
18	−0.083 200	+17 437	+ 24	−1	−0.899 488	−1 134	+280	+4	−0.390 119	− 492	+122	+2
19	0.065 763	17 456	19	+2	0.900 622	854	280	+3	0.390 611	371	121	−2
20	0.048 307	17 470	14	+4	0.901 476	574	280	0	0.390 982	250	121	−3
21	0.030 837	17 478	8	+2	0.902 050	295	279	−4	0.391 232	128	122	0
22	−0.013 359	17 481	+ 3	+1	0.902 345	− 14	281	+2	0.391 360	− 7	121	−3
23	+0.004 122	17 478	− 3	−1	0.902 359	+ 265	279	−4	0.391 367	+ 114	121	−4
24	+0.021 600	+17 471	− 7	+2	−0.902 094	+ 544	+279	−5	−0.391 253	+ 235	+121	−1
25	0.039 071	17 458	13	0	0.901 550	823	279	−5	0.391 018	357	122	+4
26	0.056 529	17 441	17	+1	0.900 727	1 101	278	−5	0.390 661	478	121	0
27	0.073 970	17 418	23	−3	0.899 626	1 380	279	+1	0.390 183	598	120	−4
28	0.091 388	17 390	28	−4	0.898 246	1 658	278	0	0.389 585	719	121	0
29	0.108 778	17 357	33	−3	0.896 588	1 935	277	−2	0.388 866	840	121	+1
30	+0.126 135	+17 320	− 37	+2	−0.894 653	+2 213	+278	+3	−0.388 026	+ 960	+120	−2
31	0.143 455	+17 277	43	0	0.892 440	+2 490	277	+3	0.387 066	+1 081	121	0
32	+0.160 732		− 49	−3	−0.889 950		+277	+5	−0.385 985		+119	−4

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

Frühlingsäquinoktium	21. März	$12^h\ 29^m$	Herbstäquinoktium	23. Sept.	$22^h\ 50^m$
Sommersolstitium	22. Juni	7 40	Wintersolstitium	22. Dez.	18 6

Erdnähe 3. Jan. 22^h
Erdferne 5. Juii 20

Tag		0ʰ Welt-Zeit			
		Aberration	Parallaxe	Mittlere Länge $L_{\odot}$	Mittlere Anomalie $M_{\odot}$
1939		"	"	°	°
Jan.	1	20.82	8.95	279.7502	357.86
	11	20.82	8.95	289.6067	7.71
	21	20.80	8.94	299.4631	17.57
	31	20.78	8.93	309.3196	27.43
Febr.	10	20.74	8.92	319.1761	37.28
	20	20.70	8.90	329.0326	47.14
März	2	20.66	8.88	338.8890	56.99
	12	20.60	8.86	348.7455	66.85
	22	20.54	8.83	358.6020	76.71
April	1	20.49	8.81	8.4585	86.56
	11	20.43	8.79	18.3149	96.42
	21	20.37	8.76	28.1714	106.27
Mai	1	20.32	8.73	38.0279	116.13
	11	20.27	8.71	47.8844	125.99
	21	20.22	8.69	57.7408	135.84
	31	20.19	8.68	67.5973	145.70
Juni	10	20.16	8.67	77.4538	155.55
	20	20.14	8.66	87.3102	165.41
	30	20.13	8.66	97.1667	175.27
Juli	10	20.13	8.66	107.0232	185.12
	20	20.14	8.66	116.8797	194.98
	30	20.16	8.67	126.7361	204.83
Aug.	9	20.19	8.68	136.5926	214.69
	19	20.22	8.69	146.4491	224.55
	29	20.27	8.71	156.3056	234.40
Sept.	8	20.32	8.73	166.1620	244.26
	18	20.37	8.76	176.0185	254.11
	28	20.43	8.78	185.8750	263.97
Okt.	8	20.49	8.81	195.7315	273.83
	18	20.55	8.83	205.5879	283.68
	28	20.60	8.86	215.4444	293.54
Nov.	7	20.66	8.88	225.3009	303.39
	17	20.70	8.90	235.1573	313.25
	27	20.75	8.92	245.0138	323.11
Dez.	7	20.78	8.93	254.8703	332.96
	17	20.80	8.94	264.7268	342.82
	27	20.82	8.95	274.5832	352.67
	37	20.82	8.95	284.4397	2.53

Tag	0ʰ Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite
1939	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Jan. 0	1 13 46	51 38	+10 11.9	3 41.2	56 41.9	56.0	15 28.4	15.3	20.877	+2.210
1	2 5 24	55 2	+13 53.1	3 5.0	57 37.9	59.2	15 43.7	16.1	33.981	+1.101
2	3 0 26	58 38	+16 58.1	2 11.9	58 37.1	57.6	15 59.8	15.7	47.542	−0.106
3	3 59 4	61 44	+19 10.0	1 1.8	59 34.7	50.4	16 15.5	13.7	61.591	−1.346
4	5 0 48	63 39	+20 11.8	0 20.7	60 25.1	37.3	16 29.2	10.2	76.115	−2.538
5	6 4 27	63 51	+19 51.1	1 46.2	61 2.4	19.7	16 39.4	5.4	91.047	−3.589
6	7 8 18	62 28	+18 4.9	3 3.5	61 22.1	0.6	16 44.8	0.2	106.257	−4.405
7	8 10 46	60 3	+15 1.4	4 3.2	61 21.5	20.1	16 44.6	5.5	121.572	−4.910
8	9 10 49	57 19	+10 58.2	4 40.5	61 1.4	36.4	16 39.1	9.9	136.802	−5.065
9	10 8 8	54 52	+ 6 17.7	4 55.5	60 25.0	47.7	16 29.2	13.0	151.771	−4.868
10	11 3 0	53 2	+ 1 22.2	4 51.2	59 37.3	53.3	16 16.2	14.5	166.353	−4.357
11	11 56 2	51 52	− 3 29.0	4 31.5	58 44.0	54.1	16 1.7	14.8	180.477	−3.591
12	12 47 54	51 20	− 8 0.5	3 59.8	57 49.9	51.2	15 46.9	13.9	194.133	−2.641
13	13 39 14	51 16	−12 0.3	3 18.7	56 58.7	45.7	15 33.0	12.5	207.352	−1.577
14	14 30 30	51 28	−15 19.0	2 30.8	56 13.0	39.1	15 20.5	10.6	220.191	−0.462
15	15 21 58	51 38	−17 49.8	1 38.0	55 33.9	32.1	15 9.9	8.7	232.722	+0.647
16	16 13 36	51 35	−19 27.8	0 42.4	55 1.8	25.1	15 1.2	6.9	245.016	+1.704
17	17 5 11	51 10	−20 10.2	0 13.4	54 36.7	18.8	14 54.3	5.1	257.137	+2.665
18	17 56 21	50 20	−19 56.8	1 6.9	54 17.9	12.9	14 49.2	3.5	269.140	+3.496
19	18 46 41	49 12	−18 49.9	1 55.5	54 5.0	7.6	14 45.7	2.1	281.068	+4.166
20	19 35 53	47 54	−16 54.4	2 37.8	53 57.4	2.4	14 43.6	0.7	292.953	+4.649
21	20 23 47	46 41	−14 16.6	3 12.4	53 55.0	2.7	14 42.9	0.8	304.820	+4.929
22	21 10 28	45 42	−11 4.2	3 38.8	53 57.7	8.2	14 43.7	2.2	316.690	+4.995
23	21 56 10	45 10	− 7 25.4	3 57.0	54 5.9	14.3	14 45.9	3.9	328.584	+4.844
24	22 41 20	45 11	− 3 28.4	4 7.0	54 20.2	21.1	14 49.8	5.7	340.530	+4.479
25	23 26 31	45 51	+ 0 38.6	4 8.4	54 41.3	28.4	14 55.5	7.8	352.565	+3.911
26	0 12 22	47 13	+ 4 47.0	4 0.7	55 9.7	36.2	15 3.3	9.9	4.738	+3.159
27	0 59 35	49 20	+ 8 47.7	3 42.9	55 45.9	43.8	15 13.2	11.9	17.107	+2.247
28	1 48 55	52 4	+12 30.6	3 13.1	56 29.7	50.5	15 25.1	13.7	29.742	+1.204
29	2 40 59	55 14	+15 43.7	2 29.3	57 20.2	55.2	15 38.8	15.1	42.718	+0.072
30	3 36 13	58 25	+18 13.0	1 30.7	58 15.4	56.4	15 53.9	15.3	56.104	−1.099
31	4 34 38	61 3	+19 43.7	0 18.5	59 11.8	53.1	16 9.2	14.5	69.952	−2.244
Febr. 1	5 35 41	62 34	+20 2.2	1 2.2	60 4.9	44.2	16 23.7	12.1	84.282	−3.288
2	6 38 15	62 41	+19 0.0	2 23.0	60 49.1	29.6	16 35.8	8.0	99.062	−4.145
3	7 40 56	61 32	+16 37.0	3 33.8	61 18.7	10.7	16 43.8	2.9	114.199	−4.733
4	8 42 28	59 38	+13 3.2	4 26.3	61 29.4	10.0	16 46.7	2.7	129.539	−4.991
5	9 42 6	57 32	+ 8 36.9	4 56.0	61 19.4	29.6	16 44.0	8.0	144.891	−4.890
6	10 39 38	55 39	+ 3 40.9	5 2.7	60 49.8	45.0	16 36.0	12.3	160.055	−4.445
7	11 35 17	54 14	− 1 21.8	4 49.2	60 4.8	54.9	16 23.7	15.0	174.867	−3.707
8	12 29 31	53 20	− 6 11.0	4 19.6	59 9.9	59.0	16 8.7	16.0	189.218	−2.752
9	13 22 51	52 48	−10 30.6	3 38.3	58 10.9	57.9	15 52.7	15.8	203.063	−1.662
10	14 15 39		−14 8.9		57 13.0		15 36.9		216.414	−0.516

Tag	Obere Kulmination in Greenwich							0^h Länge, $+50°$ Breite			
	AR.	Änderung für 1^h westl. Länge	Dekl.	Änderung für 1^h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1^h westl. Länge	Aufgang	Änderung für 1^h westl. Länge	Untergang	Änderung für 1^h westl. Länge
1939	h m s	s	° '	'	'	h m	m	h m	m	h m	m
Jan. 0	1 54 59	136	+13 11.9	+ 9.2	57.4	19 16.8	2.10	12 4	1.2	1 32	2.9
1	2 51 22	146	+16 31.6	+ 7.3	58.5	20 9.1	2.26	12 35	1.5	2 41	2.9
2	3 51 46	156	+18 57.4	+ 4.7	59.5	21 5.4	2.43	13 14	1.9	3 53	2.9
3	4 55 48	164	+20 9.8	+ 1.2	60.4	22 5.3	2.55	14 4	2.3	5 3	2.8
4	6 2 6	167	+19 53.4	− 2.6	61.0	23 7.5	2.61	15 4	2.8	6 9	2.6
5	— — —	—	— —	—	—	— —	—	16 15	3.1	7 7	2.2
6	7 8 44	165	+18 3.9	− 6.4	61.4	0 10.0	2.58	17 34	3.3	7 56	1.8
7	8 13 47	159	+14 50.6	− 9.5	61.3	1 10.9	2.48	18 56	3.4	8 36	1.5
8	9 16 4	152	+10 34.2	−11.6	61.0	2 9.1	2.36	20 17	3.3	9 9	1.3
9	10 15 17	144	+ 5 40.3	−12.7	60.3	3 4.2	2.24	21 36	3.2	9 39	1.2
10	11 11 50	139	+ 0 33.6	−12.7	59.5	3 56.7	2.14	22 52	3.1	10 6	1.1
11	12 6 27	135	− 4 25.2	−12.0	58.6	4 47.2	2.08	— —	—	10 32	1.1
12	12 59 56	133	− 8 59.8	−10.8	57.6	5 36.6	2.05	0 5	3.0	10 59	1.2
13	13 52 57	132	−12 57.8	− 9.0	56.8	6 25.6	2.04	1 16	2.9	11 27	1.3
14	14 46 1	133	−16 9.9	− 6.9	56.0	7 14.6	2.05	2 24	2.8	12 0	1.4
15	15 39 18	133	−18 28.8	− 4.6	55.4	8 3.8	2.05	3 27	2.6	12 36	1.6
16	16 32 43	133	−19 50.0	− 2.1	54.9	8 53.1	2.05	4 26	2.3	13 18	1.9
17	17 25 57	132	−20 11.4	+ 0.4	54.5	9 42.3	2.03	5 19	2.1	14 6	2.1
18	18 18 31	130	−19 33.8	+ 2.7	54.2	10 30.8	2.00	6 4	1.8	15 0	2.3
19	19 10 1	127	−18 1.2	+ 4.9	54.0	11 18.2	1.95	6 44	1.5	15 57	2.4
20	20 0 8	124	−15 39.8	+ 6.8	53.9	12 4.2	1.89	7 17	1.3	16 57	2.5
21	20 48 51	120	−12 37.6	+ 8.3	53.9	12 48.9	1.83	7 46	1.1	17 59	2.6
22	21 36 20	118	− 9 3.5	+ 9.5	54.0	13 32.3	1.79	8 12	1.0	19 1	2.6
23	22 23 1	116	− 5 6.3	+10.2	54.2	14 14.9	1.77	8 35	1.0	20 4	2.6
24	23 9 27	116	− 0 55.1	+10.6	54.5	14 57.3	1.77	8 57	0.9	21 8	2.7
25	23 56 20	118	+ 3 21.1	+10.7	55.0	15 40.1	1.81	9 19	1.0	22 12	2.7
26	0 44 27	123	+ 7 32.9	+10.3	55.6	16 24.2	1.87	9 42	1.0	23 18	2.8
27	1 34 38	129	+11 29.7	+ 9.4	56.3	17 10.3	1.98	10 7	1.1	— —	—
28	2 27 39	137	+14 58.8	+ 7.9	57.1	17 59.3	2.11	10 35	1.3	0 25	2.8
29	3 24 7	146	+17 45.4	+ 5.8	58.1	18 51.6	2.26	11 10	1.6	1 33	2.8
30	4 24 11	154	+19 32.6	+ 3.0	59.0	19 47.6	2.40	11 52	2.0	2 42	2.8
31	5 27 23	161	+20 4.3	− 0.4	60.0	20 46.7	2.51	12 45	2.4	3 47	2.6
Febr. 1	6 32 29	164	+19 9.2	− 4.2	60.8	21 47.7	2.55	13 48	2.9	4 48	2.4
2	7 37 52	162	+16 45.9	− 7.7	61.3	22 49.0	2.53	15 2	3.2	5 41	2.0
3	8 42 1	158	+13 5.1	−10.5	61.5	23 49.0	2.46	16 21	3.4	6 26	1.7
4	— — —	—	— —	—	—	— —	—	17 44	3.5	7 4	1.5
5	9 44 1	152	+ 8 27.6	−12.4	61.3	0 46.9	2.36	19 7	3.4	7 36	1.3
6	10 43 39	146	+ 3 19.3	−13.1	60.8	1 42.4	2.27	20 27	3.3	8 5	1.2
7	11 41 13	142	− 1 54.1	−12.8	60.0	2 35.9	2.20	21 45	3.2	8 33	1.2
8	12 37 16	139	− 6 50.6	−11.7	59.0	3 27.9	2.14	22 59	3.0	9 1	1.2
9	13 32 22	137	−11 13.2	−10.0	58.0	4 18.9	2.11	— —	—	9 30	1.3
10	14 26 57	136	−14 49.6	− 7.9	57.0	5 9.4	2.10	0 10	2.9	10 2	1.4

Tag	0h Welt-Zeit Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite
1939	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Febr. 10	14 15 39	52 32	−14 8.9	2 49.0	57 13.0	52.9	15 36.9	14.4	216.414	−0.516
11	15 8 11	52 18	−16 57.9	1 54.8	56 20.1	45.6	15 22.5	12.4	229.323	+0.620
12	16 0 29	51 56	−18 52.7	0 58.5	55 34.5	36.8	15 10.1	10.1	241.863	+1.694
13	16 52 25	51 19	−19 51.2	0 2.4	54 57.7	27.7	15 0.0	7.5	254.118	+2.665
14	17 43 44	50 26	−19 53.6	0 51.3	54 30.0	19.0	14 52.5	5.2	266.170	+3.498
15	18 34 10	49 20	−19 2.3	1 40.8	54 11.0	10.8	14 47.3	3.0	278.093	+4.168
16	19 23 30	48 9	−17 21.5	2 24.5	54 0.2	3.7	14 44.3	0.9	289.952	+4.653
17	20 11 39	47 1	−14 57.0	3 1.2	53 56.5	2.7	14 43.4	0.7	301.795	+4.935
18	20 58 40	46 6	−11 55.8	3 30.6	53 59.2	8.0	14 44.1	2.2	313.663	+5.004
19	21 44 46	45 34	− 8 25.2	3 51.6	54 7.2	12.9	14 46.3	3.5	325.581	+4.856
20	22 30 20	45 29	− 4 33.6	4 4.2	54 20.1	17.4	14 49.8	4.7	337.572	+4.491
21	23 15 49	45 54	− 0 29.4	4 7.7	54 37.5	21.9	14 54.5	6.0	349.652	+3.921
22	0 1 43	46 56	+ 3 38.3	4 1.7	54 59.4	26.5	15 0.5	7.2	1.844	+3.166
23	0 48 39	48 33	+ 7 40.0	3 45.4	55 25.9	31.4	15 7.7	8.5	14.173	+2.252
24	1 37 12	50 40	+11 25.4	3 17.8	55 57.3	36.2	15 16.2	9.9	26.676	+1.215
25	2 27 52	53 11	+14 43.2	2 38.3	56 33.5	41.0	15 26.1	11.2	39.398	+0.098
26	3 21 3	55 48	+17 21.5	1 46.1	57 14.5	44.6	15 37.3	12.2	52.392	−1.050
27	4 16 51	58 8	+19 7.6	0 42.4	57 59.1	46.6	15 49.5	12.6	65.711	−2.170
28	5 14 59	59 48	+19 50.0	0 29.8	58 45.7	45.4	16 2.1	12.4	79.404	−3.199
März 1	6 14 47	60 32	+19 20.2	1 45.3	59 31.1	40.3	16 14.5	11.0	93.496	−4.065
2	7 15 19	60 16	+17 34.9	2 56.8	60 11.4	30.6	16 25.5	8.3	107.980	−4.697
3	8 15 35	59 19	+14 38.1	3 56.5	60 42.0	16.6	16 33.8	4.5	122.799	−5.033
4	9 14 54	58 1	+10 41.6	4 38.7	60 58.6	0.6	16 38.3	0.1	137.848	−5.030
5	10 12 55	56 44	+ 6 2.9	4 59.6	60 58.0	18.5	16 38.2	5.1	152.974	−4.678
6	11 9 39	55 43	+ 1 3.3	4 58.8	60 39.5	34.9	16 33.1	9.5	168.010	−4.003
7	12 5 22	55 1	− 3 55.5	4 38.2	60 4.6	47.2	16 23.6	12.8	182.792	−3.068
8	13 0 23	54 34	− 8 33.7	4 1.4	59 17.4	54.6	16 10.8	14.9	197.196	−1.955
9	13 54 57	54 16	−12 35.1	3 13.0	58 22.8	56.6	15 55.9	15.4	211.149	−0.755
10	14 49 13	53 52	−15 48.1	2 17.3	57 26.2	54.1	15 40.5	14.8	224.630	+0.450
11	15 43 5	53 16	−18 5.4	1 18.6	56 32.1	48.0	15 25.7	13.0	237.664	+1.595
12	16 36 21	52 22	−19 24.0	0 20.1	55 44.1	39.5	15 12.7	10.8	250.305	+2.627
13	17 28 43	51 12	−19 44.1	0 35.4	55 4.6	29.9	15 1.9	8.2	262.629	+3.510
14	18 19 55	49 52	−19 8.7	1 26.2	54 34.7	19.9	14 53.7	5.4	274.717	+4.219
15	19 9 47	48 29	−17 42.5	2 11.1	54 14.8	10.0	14 48.3	2.7	286.651	+4.734
16	19 58 16	47 17	−15 31.4	2 49.4	54 4.8	1.0	14 45.6	0.3	298.510	+5.043
17	20 45 33	46 21	−12 42.0	3 20.7	54 3.8	7.0	14 45.3	1.9	310.360	+5.135
18	21 31 54	45 48	− 9 21.3	3 44.5	54 10.8	13.7	14 47.2	3.8	322.257	+5.006
19	22 17 42	45 44	− 5 36.8	4 0.4	54 24.5	19.0	14 51.0	5.1	334.247	+4.657
20	23 3 26	46 12	− 1 36.4	4 7.3	54 43.5	22.9	14 56.1	6.3	346.361	+4.096
21	23 49 38	47 11	+ 2 30.9	4 4.6	55 6.4	25.9	15 2.4	7.1	358.622	+3.339
22	0 36 49	48 41	+ 6 35.5	3 50.9	55 32.3	28.0	15 9.5	7.6	11.046	+2.413
23	1 25 30		+10 26.4		56 0.3		15 17.1		23.645	+1.354

Tag	Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1939	h m s	s	° '	'	'	h m	m	h m	m	h m	m
Febr. 10	14 26 57	136	—14 49.6	— 7.9	57.0	5 9.4	2.10	0 10	2.9	10 2	1.4
11	15 21 16	135	—17 31.8	— 5.6	56.1	5 59.7	2.09	1 17	2.7	10 38	1.6
12	16 15 18	134	—19 15.1	— 3.0	55.4	6 49.6	2.07	2 18	2.4	11 18	1.8
13	17 8 51	133	—19 58.0	— 0.5	54.8	7 39.1	2.04	3 13	2.2	12 4	2.0
14	18 1 38	131	—19 41.4	+ 1.9	54.4	8 27.8	2.00	4 2	1.9	12 56	2.2
15	18 53 20	128	—18 29.0	+ 4.1	54.1	9 15.4	1.96	4 43	1.6	13 51	2.4
16	19 43 46	124	—16 26.1	+ 6.1	54.0	10 1.8	1.90	5 18	1.4	14 50	2.5
17	20 32 53	121	—13 39.7	+ 7.7	53.9	10 46.8	1.85	5 49	1.2	15 51	2.6
18	21 20 52	119	—10 17.9	+ 9.0	54.0	11 30.7	1.81	6 16	1.1	16 54	2.6
19	22 8 2	117	— 6 29.3	+10.0	54.2	12 13.9	1.78	6 40	1.0	17 56	2.6
20	22 54 50	117	— 2 22.9	+10.5	54.5	12 56.6	1.78	7 3	1.0	19 0	2.7
21	23 41 51	118	+ 1 51.7	+10.6	54.8	13 39.5	1.80	7 26	1.0	20 4	2.7
22	0 29 42	121	+ 6 4.5	+10.3	55.2	14 23.3	1.85	7 49	1.0	21 10	2.8
23	1 19 4	126	+10 4.8	+ 9.6	55.8	15 8.6	1.93	8 13	1.1	22 16	2.8
24	2 10 34	132	+13 40.5	+ 8.3	56.3	15 56.1	2.03	8 41	1.2	23 22	2.8
25	3 4 45	139	+16 38.7	+ 6.4	57.0	16 46.2	2.15	9 12	1.5	— —	—
26	4 1 51	146	+18 45.3	+ 4.0	57.8	17 39.2	2.27	9 51	1.8	0 29	2.8
27	5 1 41	153	+19 46.5	+ 1.0	58.6	18 34.9	2.37	10 38	2.1	1 34	2.6
28	6 3 36	157	+19 31.4	— 2.3	59.4	19 32.7	2.44	11 34	2.5	2 34	2.4
März 1	7 6 33	158	+17 54.7	— 5.7	60.1	20 31.6	2.45	12 40	2.9	3 28	2.1
2	8 9 21	156	+14 59.6	— 8.8	60.7	21 30.3	2.43	13 54	3.2	4 15	1.8
3	9 11 9	153	+10 58.2	—11.2	61.0	22 28.0	2.38	15 12	3.4	4 55	1.6
4	10 11 29	149	+ 6 10.2	—12.6	61.0	23 24.2	2.31	16 34	3.4	5 30	1.4
5	— — —	—	— —	—	—	— —	—	17 55	3.4	6 1	1.3
6	11 10 23	146	+ 0 59.3	—13.1	60.7	0 19.0	2.26	19 15	3.3	6 30	1.2
7	12 8 9	143	— 4 10.2	—12.5	60.0	1 12.7	2.22	20 33	3.2	6 59	1.2
8	13 5 9	142	— 8 56.4	—11.2	59.2	2 5.6	2.20	21 48	3.0	7 28	1.3
9	14 1 41	141	—13 1.8	— 9.2	58.3	2 58.0	2.18	22 59	2.9	8 0	1.4
10	14 57 51	140	—16 13.9	— 6.8	57.3	3 50.1	2.16	— —	—	8 35	1.6
11	15 53 34	138	—18 25.4	— 4.2	56.4	4 41.8	2.14	0 5	2.6	9 15	1.8
12	16 48 33	136	—19 33.8	— 1.5	55.6	5 32.6	2.10	1 4	2.3	10 0	2.0
13	17 42 27	133	—19 39.9	+ 1.0	54.9	6 22.5	2.05	1 55	2.0	10 50	2.2
14	18 34 59	129	—18 48.0	+ 3.3	54.5	7 10.9	1.99	2 40	1.7	11 45	2.4
15	19 26 1	126	—17 3.7	+ 5.3	54.2	7 57.9	1.93	3 18	1.5	12 43	2.5
16	20 15 35	122	—14 33.9	+ 7.1	54.1	8 43.4	1.87	3 50	1.3	13 43	2.5
17	21 3 55	120	—11 26.2	+ 8.5	54.1	9 27.7	1.83	4 18	1.1	14 44	2.6
18	21 51 23	118	— 7 48.5	+ 9.6	54.3	10 11.1	1.80	4 44	1.0	15 47	2.6
19	22 38 27	118	— 3 49.1	+10.2	54.5	10 54.1	1.79	5 7	1.0	16 50	2.7
20	23 25 43	119	+ 0 23.0	+10.6	54.9	11 37.3	1.82	5 30	1.0	17 55	2.7
21	0 13 46	122	+ 4 37.8	+10.5	55.3	12 21.3	1.85	5 54	1.0	19 0	2.8
22	1 3 12	126	+ 8 44.0	+ 9.9	55.8	13 6.6	1.93	6 18	1.1	20 7	2.8
23	1 54 34	131	+12 29.3	+ 8.8	56.3	13 53.9	2.02	6 45	1.2	21 14	2.8

Tag		0h Welt-Zeit									
		Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite
1939		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
März	23	1 25 30	50 38	+10 26.4	3 25.5	56 0.3	29.5	15 17.1	8.0	23.645	+1.354
	24	2 16 8	52 51	+13 51.9	2 47.7	56 29.8	30.7	15 25.1	8.4	36.432	+0.209
	25	3 8 59	55 3	+16 39.6	1 57.7	57 0.5	31.7	15 33.5	8.6	49.424	−0.967
	26	4 4 2	56 57	+18 37.3	0 57.0	57 32.2	32.4	15 42.1	8.8	62.638	−2.112
	27	5 0 59	58 14	+19 34.3	0 10.9	58 4.6	32.2	15 50.9	8.8	76.096	−3.164
	28	5 59 13	58 43	+19 23.4	1 21.8	58 36.8	30.8	15 59.7	8.4	89.815	−4.056
	29	6 57 56	58 26	+18 1.6	2 29.5	59 7.6	27.3	16 8.1	7.4	103.805	−4.727
	30	7 56 22	57 38	+15 32.1	3 28.8	59 34.9	21.1	16 15.5	5.8	118.055	−5.122
	31	8 54 0	56 38	+12 3.3	4 14.7	59 56.0	12.2	16 21.3	3.3	132.528	−5.201
April	1	9 50 38	55 44	+ 7 48.6	4 43.7	60 8.2	0.6	16 24.6	0.2	147.156	−4.946
	2	10 46 22	55 9	+ 3 4.9	4 53.8	60 8.8	12.4	16 24.8	3.4	161.845	−4.367
	3	11 41 31	54 54	− 1 48.9	4 44.8	59 56.4	25.3	16 21.4	6.9	176.480	−3.504
	4	12 36 25	54 57	− 6 33.7	4 17.7	59 31.1	36.6	16 14.5	9.9	190.944	−2.424
	5	13 31 22	55 4	−10 51.4	3 35.6	58 54.5	44.6	16 4.6	12.2	205.137	−1.211
	6	14 26 26	55 4	−14 27.0	2 42.5	58 9.9	48.6	15 52.4	13.2	218.983	+0.047
	7	15 21 30	54 42	−17 9.5	1 42.9	57 21.3	48.5	15 39.2	13.3	232.444	+1.270
	8	16 16 12	53 52	−18 52.4	0 41.9	56 32.8	44.8	15 25.9	12.2	245.516	+2.392
	9	17 10 4	52 35	−19 34.3	0 16.9	55 48.0	38.1	15 13.7	10.4	258.226	+3.364
	10	18 2 39	50 59	−19 17.4	1 10.6	55 9.9	29.4	15 3.3	8.0	270.625	+4.153
	11	18 53 38	49 20	−18 6.8	1 57.8	54 40.5	19.5	14 55.3	5.3	282.779	+4.739
	12	19 42 58	47 48	−16 9.0	2 37.8	54 21.0	9.0	14 50.0	2.4	294.762	+5.109
	13	20 30 46	46 35	−13 31.2	3 10.5	54 12.0	1.1	14 47.6	0.3	306.653	+5.257
	14	21 17 21	45 51	−10 20.7	3 36.2	54 13.1	10.7	14 47.9	2.9	318.530	+5.181
	15	22 3 12	45 38	− 6 44.5	3 54.6	54 23.8	18.9	14 50.8	5.0	330.462	+4.881
	16	22 48 50	46 3	− 2 49.9	4 5.0	54 42.7	25.5	14 55.8	7.1	342.513	+4.364
	17	23 34 53	47 5	+ 1 15.1	4 6.4	55 8.2	30.3	15 2.9	8.2	354.734	+3.643
	18	0 21 58	48 41	+ 5 21.5	3 57.3	55 38.5	32.9	15 11.1	9.0	7.165	+2.738
	19	1 10 39	50 46	+ 9 18.8	3 36.1	56 11.4	33.5	15 20.1	9.1	19.830	+1.682
	20	2 1 25	53 8	+12 54.9	3 1.4	56 44.9	32.3	15 29.2	8.8	32.741	+0.520
	21	2 54 33	55 28	+15 56.3	2 13.2	57 17.2	29.6	15 38.0	8.1	45.896	−0.692
	22	3 50 1	57 24	+18 9.5	1 13.1	57 46.8	26.2	15 46.1	7.1	59.285	−1.888
	23	4 47 25	58 33	+19 22.6	0 4.8	58 13.0	22.3	15 53.2	6.1	72.889	−2.997
	24	5 45 58	58 46	+19 27.4	1 6.1	58 35.3	18.2	15 59.3	5.0	86.685	−3.948
	25	6 44 44	58 7	+18 21.3	2 13.6	58 53.5	14.3	16 4.3	3.8	100.644	−4.678
	26	7 42 51	56 55	+16 7.7	3 12.1	59 7.8	9.9	16 8.1	2.8	114.739	−5.135
	27	8 39 46	55 35	+12 55.6	3 58.1	59 17.7	5.1	16 10.9	1.4	128.935	−5.284
	28	9 35 21	54 25	+ 8 57.5	4 29.0	59 22.8	0.5	16 12.3	0.2	143.194	−5.110
	29	10 29 46	53 43	+ 4 28.5	4 43.6	59 22.3	7.2	16 12.1	1.9	157.470	−4.622
	30	11 23 29	53 31	− 0 15.1	4 41.6	59 15.1	14.7	16 10.2	4.0	171.712	−3.851
Mai	1	12 17 0	53 46	− 4 56.7	4 23.1	59 0.4	22.3	16 6.2	6.1	185.862	−2.849
	2	13 10 46	54 17	− 9 19.8	3 49.3	58 38.1	29.6	16 0.1	8.1	199.862	−1.686
	3	14 5 3		−13 9.1		58 8.5		15 52.0		213.654	−0.440

Tag	Obere Kulmination in Greenwich: AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	0h Länge, + 50° Breite: Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1939	h m s	s	° '	'	'	h m	m	h m	m	h m	m
März 23	1 54 34	131	+12 29.3	+ 8.8	56.3	13 53.9	2.02	6 45	1.2	21 14	2.8
24	2 48 18	137	+15 40.1	+ 7.0	56.8	14 43.6	2.12	7 16	1.4	22 21	2.8
25	3 44 31	144	+18 2.4	+ 4.7	57.4	15 35.7	2.23	7 52	1.7	23 26	2.6
26	4 43 2	149	+19 23.5	+ 1.9	57.9	16 30.1	2.30	8 36	2.0	— —	—
27	5 43 13	152	+19 33.4	— 1.2	58.5	17 26.2	2.36	9 29	2.4	0 27	2.4
28	6 44 12	153	+18 27.0	— 4.4	59.0	18 23.1	2.38	10 30	2.7	1 22	2.1
29	7 45 3	151	+16 6.2	— 7.3	59.5	19 19.9	2.35	11 38	3.0	2 10	1.9
30	8 45 5	149	+12 39.2	— 9.8	59.9	20 15.8	2.31	12 52	3.2	2 51	1.6
31	9 44 1	146	+ 8 20.4	—11.6	60.1	21 10.7	2.26	14 10	3.3	3 27	1.4
April 1	10 41 55	144	+ 3 28.3	—12.6	60.2	22 4.5	2.23	15 28	3.3	3 58	1.3
2	11 39 8	143	— 1 36.3	—12.6	60.0	22 57.6	2.20	16 47	3.3	4 28	1.2
3	12 36 3	142	— 6 31.9	—11.8	59.5	23 50.4	2.20	18 5	3.2	4 56	1.2
4	— — —	—	— —	—	—	— —	—	19 22	3.1	5 25	1.3
5	13 33 1	143	—10 58.6	—10.3	58.9	0 43.3	2.21	20 36	3.0	5 56	1.4
6	14 30 7	143	—14 39.6	— 8.1	58.1	1 36.3	2.21	21 45	2.8	6 30	1.5
7	15 27 11	142	—17 23.0	— 5.5	57.3	2 29.3	2.20	22 49	2.5	7 8	1.7
8	16 23 48	141	—19 2.0	— 2.8	56.4	3 21.8	2.17	23 45	2.2	7 52	1.9
9	17 19 25	137	—19 35.5	— 0.1	55.7	4 13.4	2.12	— —	—	8 41	2.1
10	18 13 32	133	—19 6.8	+ 2.4	55.0	5 3.4	2.05	0 34	1.9	9 35	2.3
11	19 5 50	128	—17 42.1	+ 4.6	54.6	5 51.6	1.97	1 15	1.6	10 32	2.4
12	19 56 19	124	—15 29.1	+ 6.4	54.3	6 38.0	1.90	1 50	1.4	11 32	2.5
13	20 45 12	121	—12 35.8	+ 7.9	54.2	7 22.9	1.84	2 20	1.2	12 33	2.6
14	21 32 54	118	— 9 10.1	+ 9.1	54.3	8 6.5	1.80	2 46	1.0	13 35	2.6
15	22 19 58	117	— 5 19.9	+10.0	54.5	8 49.5	1.79	3 10	1.0	14 38	2.6
16	23 7 4	118	— 1 13.3	+10.5	54.9	9 32.5	1.80	3 33	1.0	15 42	2.7
17	23 54 53	121	+ 3 1.0	+10.6	55.3	10 16.3	1.85	3 56	1.0	16 47	2.8
18	0 44 6	125	+ 7 12.4	+10.3	55.9	11 1.4	1.92	4 21	1.1	17 54	2.8
19	1 35 21	131	+11 8.6	+ 9.3	56.5	11 48.6	2.02	4 47	1.2	19 2	2.8
20	2 29 6	138	+14 35.6	+ 7.8	57.0	12 38.3	2.13	5 17	1.4	20 10	2.8
21	3 25 30	144	+17 18.0	+ 5.6	57.6	13 30.6	2.23	5 52	1.6	21 18	2.7
22	4 24 19	150	+19 1.3	+ 2.9	58.1	14 25.3	2.32	6 34	1.9	22 21	2.5
23	5 24 49	153	+19 33.8	— 0.2	58.5	15 21.7	2.37	7 25	2.3	23 19	2.3
24	6 25 57	153	+18 50.1	— 3.4	58.8	16 18.8	2.38	8 24	2.6	— —	—
25	7 26 38	150	+16 51.6	— 6.4	59.1	17 15.4	2.33	9 30	2.9	0 9	1.9
26	8 26 6	147	+13 46.9	— 8.9	59.3	18 10.7	2.28	10 42	3.0	0 51	1.6
27	9 24 3	143	+ 9 49.3	—10.8	59.4	19 4.6	2.22	11 56	3.1	1 28	1.4
28	10 20 39	140	+ 5 15.4	—11.9	59.4	19 57.1	2.17	13 13	3.2	2 0	1.3
29	11 16 22	139	+ 0 22.8	—12.3	59.3	20 48.7	2.14	14 29	3.2	2 29	1.2
30	12 11 47	139	— 4 29.9	—11.9	59.0	21 40.1	2.14	15 45	3.1	2 57	1.1
Mai 1	13 7 27	140	— 9 4.5	—10.8	58.7	22 31.6	2.16	17 0	3.1	3 24	1.2
2	14 3 41	141	—13 3.9	— 9.0	58.2	23 23.8	2.19	18 14	3.0	3 54	1.3
3	— — —	—	— —	—	—	— —	—	19 25	2.9	4 26	1.4

Tag		Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite
0h Welt-Zeit											
1939		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Mai	3	14 5 3	54 49	−13 9.1	3 2.7	58 8.5	35.3	15 52.0	9.6	213.654	−0.440
	4	14 59 52	55 1	−16 11.8	2 6.7	57 33.2	38.8	15 42.4	10.6	227.194	+0.808
	5	15 54 53	54 43	−18 18.5	1 5.7	56 54.4	39.5	15 31.8	10.8	240.448	+1.985
	6	16 49 36	53 45	−19 24.2	0 4.7	56 14.9	37.5	15 21.0	10.2	253.404	+3.033
	7	17 43 21	52 17	−19 28.9	0 52.4	55 37.4	32.7	15 10.8	8.9	266.068	+3.906
	8	18 35 38	50 29	−18 36.5	1 43.1	55 4.7	25.7	15 1.9	7.0	278.465	+4.576
	9	19 26 7	48 40	−16 53.4	2 25.9	54 39.0	16.9	14 54.9	4.6	290.640	+5.026
	10	20 14 47	47 6	−14 27.5	3 0.7	54 22.1	7.2	14 50.3	1.9	302.650	+5.249
	11	21 1 53	45 59	−11 26.8	3 27.9	54 14.9	3.2	14 48.4	0.8	314.561	+5.244
	12	21 47 52	45 25	− 7 58.9	3 47.8	54 18.1	13.6	14 49.2	3.7	326.450	+5.015
	13	22 33 17	45 31	− 4 11.1	4 0.6	54 31.7	23.1	14 52.9	6.3	338.393	+4.569
	14	23 18 48	46 21	− 0 10.5	4 5.3	54 54.8	31.3	14 59.2	8.6	350.466	+3.917
	15	0 5 9	47 53	+ 3 54.8	4 1.0	55 26.1	37.6	15 7.8	10.2	2.741	+3.078
	16	0 53 2	50 3	+ 7 55.8	3 45.5	56 3.7	41.3	15 18.0	11.2	15.276	+2.074
	17	1 43 5	52 41	+11 41.3	3 16.9	56 45.0	41.9	15 29.2	11.5	28.117	+0.944
	18	2 35 46	55 29	+14 58.2	2 33.6	57 26.9	39.4	15 40.7	10.7	41.290	−0.263
	19	3 31 15	57 59	+17 31.8	1 36.0	58 6.3	34.0	15 51.4	9.3	54.793	−1.485
	20	4 29 14	59 42	+19 7.8	0 27.0	58 40.3	26.3	16 0.7	7.1	68.603	−2.645
	21	5 28 56	60 13	+19 34.8	0 47.1	59 6.6	17.4	16 7.8	4.8	82.668	−3.667
	22	6 29 9	59 36	+18 47.7	1 59.0	59 24.0	8.3	16 12.6	2.2	96.919	−4.475
	23	7 28 45	58 5	+16 48.7	3 1.5	59 32.3	0.0	16 14.8	0.0	111.276	−5.009
	24	8 26 50	56 14	+13 47.2	3 50.2	59 32.3	7.0	16 14.8	1.9	125.659	−5.230
	25	9 23 4	54 30	+ 9 57.0	4 22.6	59 25.3	12.6	16 12.9	3.4	139.996	−5.125
	26	10 17 34	53 14	+ 5 34.4	4 38.7	59 12.7	17.0	16 9.5	4.6	154.231	−4.706
	27	11 10 48	52 34	+ 0 55.7	4 38.9	58 55.7	20.6	16 4.9	5.6	168.326	−4.007
	28	12 3 22	52 31	− 3 43.2	4 24.4	58 35.1	23.5	15 59.3	6.5	182.254	−3.078
	29	12 55 53	52 56	− 8 7.6	3 56.0	58 11.6	26.4	15 52.8	7.1	196.002	−1.983
	30	13 48 49	53 35	−12 3.6	3 15.2	57 45.2	28.7	15 45.7	7.9	209.558	−0.791
	31	14 42 24	54 10	−15 18.8	2 24.5	57 16.5	30.6	15 37.8	8.3	222.917	+0.425
Juni	1	15 36 34	54 23	−17 43.3	1 26.8	56 45.9	31.6	15 29.5	8.6	236.068	+1.598
	2	16 30 57	53 58	−19 10.1	0 26.5	56 14.3	31.2	15 20.9	8.5	249.006	+2.668
	3	17 24 55	52 57	−19 36.6	0 32.4	55 43.1	29.2	15 12.4	8.0	261.727	+3.583
	4	18 17 52	51 23	−19 4.2	1 26.1	55 13.9	25.5	15 4.4	6.5	274.232	+4.309
	5	19 9 15	49 35	−17 38.1	2 12.3	54 48.4	20.0	14 57.5	5.5	286.534	+4.821
	6	19 58 50	47 49	−15 25.8	2 50.2	54 28.4	12.8	14 52.0	3.4	298.659	+5.108
	7	20 46 39	46 21	−12 35.6	3 19.5	54 15.6	4.2	14 48.6	1.2	310.645	+5.167
	8	21 33 0	45 23	− 9 16.1	3 41.0	54 11.4	5.4	14 47.4	1.5	322.543	+5.002
	9	22 18 23	45 4	− 5 35.1	3 55.2	54 16.8	15.4	14 48.9	4.2	334.418	+4.622
	10	23 3 27	45 26	− 1 39.9	4 2.0	54 32.2	25.6	14 53.1	6.9	346.341	+4.042
	11	23 48 53	46 35	+ 2 22.1	4 0.8	54 57.8	34.9	15 0.0	9.6	358.394	+3.278
	12	0 35 28	48 29	+ 6 22.9	3 50.4	55 32.7	42.9	15 9.6	11.6	10.658	+2.351
	13	1 23 57		+10 13.3		56 15.6		15 21.2		23.211	+1.292

Tag	Obere Kulmination in Greenwich: AR.	Änderung für 1ʰ westl. Länge	Dekl.	Änderung für 1ʰ westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1ʰ westl. Länge	0ʰ Länge, + 50° Breite: Aufgang	Änderung für 1ʰ westl. Länge	Untergang	Änderung für 1ʰ westl. Länge
1939	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Mai 3	— — —	—	— —	—	—	— —	—	19 25	2.9	4 26	1.4
4	15 0 29	143	−16 13.6	− 6.7	57.5	0 16.5	2.20	20 32	2.6	5 2	1.6
5	15 57 32	142	−18 23.1	− 4.0	56.9	1 9.5	2.20	21 32	2.4	5 43	1.8
6	16 54 12	141	−19 27.0	− 1.3	56.2	2 2.1	2.17	22 25	2.0	6 30	2.1
7	17 49 44	137	−19 25.5	+ 1.4	55.6	2 53.5	2.11	23 10	1.7	7 23	2.3
8	18 43 35	132	−18 23.6	+ 3.7	55.0	3 43.3	2.03	23 48	1.5	8 20	2.4
9	19 35 25	127	−16 28.9	+ 5.8	54.6	4 31.0	1.95	— —	—	9 19	2.5
10	20 25 17	122	−13 50.4	+ 7.4	54.3	5 16.8	1.88	0 20	1.3	10 20	2.6
11	21 13 30	119	−10 36.9	+ 8.7	54.2	6 1.0	1.81	0 48	1.1	11 22	2.6
12	22 0 38	117	− 6 56.7	+ 9.6	54.3	6 44.1	1.78	1 13	1.0	12 24	2.6
13	22 47 21	117	− 2 57.5	+10.3	54.6	7 26.7	1.78	1 36	1.0	13 27	2.6
14	23 34 26	119	+ 1 12.8	+10.5	55.1	8 9.7	1.81	1 59	1.0	14 31	2.7
15	0 22 42	123	+ 5 25.2	+10.4	55.7	8 53.9	1.88	2 22	1.0	15 37	2.8
16	1 12 54	129	+ 9 29.2	+ 9.8	56.3	9 40.1	1.98	2 47	1.1	16 44	2.8
17	2 5 45	136	+13 11.7	+ 8.6	57.1	10 28.9	2.10	3 16	1.3	17 53	2.9
18	3 1 39	144	+16 17.1	+ 6.7	57.8	11 20.7	2.22	3 49	1.5	19 2	2.8
19	4 0 36	151	+18 28.9	+ 4.1	58.4	12 15.5	2.34	4 28	1.8	20 9	2.7
20	5 1 58	156	+19 31.7	+ 1.0	58.9	13 12.8	2.42	5 17	2.2	21 11	2.4
21	6 4 33	157	+19 16.0	− 2.3	59.3	14 11.3	2.44	6 14	2.6	22 5	2.1
22	7 6 56	155	+17 40.5	− 5.6	59.5	15 9.5	2.40	7 20	2.9	22 51	1.8
23	8 7 56	150	+14 53.0	− 8.3	59.6	16 6.4	2.33	8 31	3.0	23 30	1.5
24	9 6 55	145	+11 8.0	−10.3	59.5	17 1.3	2.25	9 46	3.1	— —	—
25	10 3 52	140	+ 6 43.3	−11.6	59.3	17 54.2	2.17	11 2	3.2	0 4	1.3
26	10 59 15	137	+ 1 57.1	−12.1	59.0	18 45.5	2.12	12 18	3.1	0 33	1.2
27	11 53 45	136	− 2 52.7	−11.9	58.7	19 35.9	2.09	13 33	3.1	1 1	1.1
28	12 48 4	136	− 7 29.8	−11.1	58.3	20 26.2	2.10	14 47	3.0	1 28	1.1
29	13 42 47	138	−11 38.7	− 9.6	57.8	21 16.8	2.13	15 59	3.0	1 56	1.2
30	14 38 13	140	−15 5.4	− 7.6	57.3	22 8.1	2.15	17 10	2.9	2 26	1.3
31	15 34 18	141	−17 38.4	− 5.1	56.8	23 0.2	2.18	18 18	2.7	2 59	1.5
Juni 1	16 30 39	141	−19 9.8	− 2.5	56.2	23 52.4	2.17	19 20	2.5	3 38	1.7
2	— — —	—	— —	—	—	— —	—	20 16	2.2	4 22	2.0
3	17 26 34	139	−19 36.5	+ 0.2	55.7	0 44.2	2.14	21 5	1.9	5 12	2.2
4	18 21 18	135	−19 0.1	+ 2.8	55.2	1 34.9	2.08	21 46	1.6	6 8	2.4
5	19 14 17	130	−17 26.8	+ 5.0	54.8	2 23.8	2.00	22 20	1.3	7 6	2.5
6	20 5 15	125	−15 5.2	+ 6.8	54.4	3 10.7	1.91	22 50	1.2	8 7	2.6
7	20 54 19	121	−12 4.8	+ 8.2	54.2	3 55.7	1.84	23 16	1.0	9 9	2.6
8	21 41 51	117	− 8 34.7	+ 9.2	54.2	4 39.2	1.79	23 40	1.0	10 11	2.6
9	22 28 28	116	− 4 43.5	+10.0	54.3	5 21.7	1.77	— —	—	11 13	2.6
10	23 14 52	116	− 0 39.0	+10.4	54.6	6 4.1	1.77	0 2	0.9	12 16	2.6
11	0 1 55	119	+ 3 30.7	+10.4	55.1	6 47.0	1.82	0 25	1.0	13 20	2.7
12	0 50 26	124	+ 7 36.8	+10.0	55.8	7 31.5	1.90	0 49	1.0	14 26	2.8
13	1 41 18	131	+11 28.5	+ 9.2	56.5	8 18.3	2.01	1 15	1.2	15 33	2.8

Tag	0ʰ Welt-Zeit Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite
1939	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Juni 13	1 23 57	51 4	+10 13.3	3 28.4	56 15.6	48.2	15 21.2	13.2	23.211	+1.292
14	2 15 1	54 5	+13 41.7	2 52.9	57 3.8	50.4	15 34.4	13.7	36.119	+0.140
15	3 9 6	57 12	+16 34.6	2 2.3	57 54.2	48.6	15 48.1	13.3	49.431	−1.053
16	4 6 18	59 47	+18 36.9	0 57.2	58 42.8	42.3	16 1.4	11.5	63.162	−2.221
17	5 6 5	61 21	+19 34.1	0 17.8	59 25.1	32.2	16 12.9	8.7	77.293	−3.284
18	6 7 26	61 30	+19 16.3	1 35.2	59 57.3	19.1	16 21.6	5.2	91.759	−4.162
19	7 8 56	60 24	+17 41.1	2 45.8	60 16.4	4.9	16 26.8	1.4	106.456	−4.780
20	8 9 20	58 29	+14 55.3	3 42.6	60 21.3	8.5	16 28.2	2.3	121.256	−5.083
21	9 7 49	56 20	+11 12.7	4 21.1	60 12.8	19.8	16 25.9	5.4	136.025	−5.049
22	10 4 9	54 28	+ 6 51.6	4 40.7	59 53.0	28.0	16 20.5	7.6	150.643	−4.685
23	10 58 37	53 10	+ 2 10.9	4 42.9	59 25.0	33.0	16 12.9	9.0	165.026	−4.031
24	11 51 47	52 30	− 2 32.0	4 29.6	58 52.0	35.3	16 3.9	9.7	179.124	−3.142
25	12 44 17	52 24	− 7 1.6	4 2.8	58 16.7	35.6	15 54.2	9.7	192.923	−2.086
26	13 36 41	52 44	−11 4.4	3 24.7	57 41.1	34.6	15 44.5	9.4	206.434	−0.935
27	14 29 25	53 13	−14 29.1	2 37.3	57 6.5	32.9	15 35.1	9.0	219.680	+0.244
28	15 22 38	53 31	−17 6.4	1 43.0	56 33.6	30.8	15 26.1	8.3	232.693	+1.387
29	16 16 9	53 27	−18 49.4	0 45.0	56 2.8	28.4	15 17.8	7.8	245.498	+2.440
30	17 9 36	52 49	−19 34.4	0 13.3	55 34.4	25.8	15 10.0	7.0	258.119	+3.354
Juli 1	18 2 25	51 39	−19 21.1	1 8.3	55 8.6	22.6	15 3.0	6.2	270.572	+4.093
2	18 54 4	50 5	−18 12.8	1 57.0	54 46.0	18.8	14 56.8	5.1	282.869	+4.630
3	19 44 9	48 25	−16 15.8	2 37.9	54 27.2	13.8	14 51.7	3.8	295.023	+4.948
4	20 32 34	46 51	−13 37.9	3 10.3	54 13.4	7.9	14 47.9	2.1	307.052	+5.042
5	21 19 25	45 39	−10 27.6	3 34.0	54 5.5	0.7	14 45.8	0.2	318.981	+4.915
6	22 5 4	44 57	− 6 53.6	3 49.8	54 4.8	7.4	14 45.6	2.0	330.846	+4.575
7	22 50 1	44 52	− 3 3.8	3 58.1	54 12.2	16.5	14 47.6	4.5	342.697	+4.038
8	23 34 53	45 31	+ 0 54.3	3 58.6	54 28.7	26.1	14 52.1	7.1	354.596	+3.324
9	0 20 24	46 53	+ 4 52.9	3 50.9	54 54.8	35.6	14 59.2	9.7	6.616	+2.455
10	1 7 17	48 59	+ 8 43.8	3 33.8	55 30.4	44.3	15 8.9	12.1	18.838	+1.459
11	1 56 16	51 44	+12 17.6	3 5.2	56 14.7	51.3	15 21.0	14.0	31.348	+0.371
12	2 48 0	54 52	+15 22.8	2 23.2	57 6.0	55.5	15 35.0	15.1	44.226	−0.766
13	3 42 52	57 59	+17 46.0	1 26.8	58 1.5	55.7	15 50.1	15.2	57.541	−1.898
14	4 40 51	60 30	+19 12.8	0 17.4	58 57.2	50.9	16 5.3	13.8	71.331	−2.959
15	5 41 21	61 54	+19 30.2	1 0.0	59 48.1	40.8	16 19.1	11.2	85.596	−3.871
16	6 43 15	61 55	+18 30.2	2 16.8	60 28.9	26.2	16 30.3	7.1	100.280	−4.555
17	7 45 10	60 46	+16 13.4	3 24.0	60 55.1	8.6	16 37.4	2.2	115.272	−4.944
18	8 45 56	58 54	+12 49.4	4 14.1	61 3.7	9.5	16 39.6	2.4	130.417	−4.991
19	9 44 50	56 55	+ 8 35.3	4 43.2	60 54.2	25.3	16 37.2	7.0	145.541	−4.691
20	10 41 45	55 13	+ 3 52.1	4 51.4	60 28.9	37.5	16 30.2	10.2	160.478	−4.072
21	11 36 58	54 1	− 0 59.3	4 41.0	59 51.4	44.9	16 20.0	12.2	175.106	−3.196
22	12 30 59	53 22	− 5 40.3	4 15.3	59 6.5	47.9	16 7.8	13.0	189.350	−2.139
23	13 24 21	53 9	− 9 55.6	3 37.4	58 18.6	47.3	15 54.8	12.9	203.190	−0.983
24	14 17 30		−13 33.0		57 31.3		15 41.9		216.643	+0.198

Tag	Obere Kulmination in Greenwich: AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	0h Länge, + 50° Breite: Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1939	h m s	s	° '	'	'	h m	m	h m	m	h m	m
Juni 13	1 41 18	131	+11 28.5	+ 9.2	56.5	8 18.3	2.01	1 15	1.2	15 33	2.8
14	2 35 14	139	+14 52.6	+ 7.7	57.4	9 8.2	2.15	1 45	1.4	16 42	2.9
15	3 32 38	148	+17 32.7	+ 5.5	58.2	10 1.5	2.29	2 21	1.7	17 50	2.8
16	4 33 21	155	+19 11.8	+ 2.6	59.1	10 58.1	2.42	3 5	2.0	18 56	2.6
17	5 36 32	160	+19 34.9	− 0.8	59.7	11 57.2	2.49	3 59	2.4	19 55	2.3
18	6 40 42	160	+18 34.3	− 4.3	60.2	12 57.2	2.50	5 2	2.8	20 46	1.9
19	7 44 14	157	+16 12.6	− 7.4	60.3	13 56.7	2.44	6 14	3.1	21 29	1.7
20	8 45 54	151	+12 42.7	− 9.9	60.3	14 54.2	2.35	7 30	3.2	22 6	1.4
21	9 45 11	145	+ 8 23.7	−11.5	60.0	15 49.4	2.25	8 48	3.3	22 37	1.3
22	10 42 14	140	+ 3 37.2	−12.2	59.6	16 42.4	2.17	10 6	3.2	23 6	1.2
23	11 37 37	137	− 1 16.8	−12.2	59.0	17 33.7	2.11	11 22	3.1	23 33	1.1
24	12 32 4	136	− 6 0.6	−11.4	58.4	18 24.0	2.09	12 37	3.1	— —	—
25	13 26 16	136	−10 18.9	−10.0	57.8	19 14.2	2.09	13 50	3.0	0 1	1.2
26	14 20 46	137	−13 58.7	− 8.2	57.2	20 4.6	2.11	15 0	2.9	0 30	1.3
27	15 15 47	138	−16 49.2	− 6.0	56.6	20 55.5	2.13	16 8	2.8	1 1	1.4
28	16 11 12	139	−18 42.3	− 3.4	56.1	21 46.9	2.14	17 12	2.5	1 37	1.6
29	17 6 35	138	−19 33.4	− 0.8	55.6	22 38.1	2.13	18 10	2.3	2 19	1.9
30	18 1 17	135	−19 21.9	+ 1.7	55.2	23 28.8	2.08	19 0	2.0	3 6	2.1
Juli 1	— — —	—	— —	—	—	— —	—	19 44	1.7	3 59	2.3
2	18 54 42	132	−18 11.6	+ 4.1	54.8	0 18.1	2.03	20 21	1.4	4 56	2.4
3	19 46 24	127	−16 9.4	+ 6.1	54.4	1 5.8	1.95	20 52	1.2	5 56	2.5
4	20 36 15	122	−13 24.2	+ 7.6	54.2	1 51.5	1.87	21 20	1.1	6 58	2.6
5	21 24 24	119	−10 5.5	+ 8.8	54.1	2 35.6	1.81	21 44	1.0	8 0	2.6
6	22 11 18	116	− 6 22.7	+ 9.7	54.1	3 18.4	1.77	22 7	1.0	9 1	2.6
7	22 57 30	115	− 2 24.4	+10.1	54.2	4 0.6	1.75	22 30	0.9	10 4	2.6
8	23 43 45	116	+ 1 41.3	+10.3	54.6	4 42.8	1.77	22 52	1.0	11 6	2.6
9	0 30 51	120	+ 5 46.1	+10.1	55.0	5 25.8	1.83	23 17	1.1	12 10	2.7
10	1 19 39	125	+ 9 40.9	+ 9.4	55.7	6 10.6	1.91	23 44	1.3	13 15	2.8
11	2 10 58	132	+13 14.8	+ 8.3	56.5	6 57.8	2.03	— —	—	14 22	2.8
12	3 5 29	141	+16 14.7	+ 6.6	57.4	7 48.2	2.18	0 17	1.5	15 29	2.8
13	4 3 33	150	+18 24.7	+ 4.2	58.3	8 42.2	2.32	0 56	1.8	16 35	2.7
14	5 4 57	157	+19 28.7	+ 1.1	59.3	9 39.5	2.44	1 44	2.2	17 38	2.5
15	6 8 44	161	+19 13.3	− 2.4	60.1	10 39.2	2.52	2 42	2.6	18 33	2.1
16	7 13 25	161	+17 33.0	− 5.9	60.7	11 39.8	2.52	3 50	3.0	19 21	1.9
17	8 17 26	158	+14 33.2	− 9.0	61.0	12 39.7	2.46	5 5	3.2	20 2	1.6
18	9 19 38	153	+10 29.9	−11.2	61.0	13 37.8	2.38	6 25	3.3	20 37	1.4
19	10 19 36	147	+ 5 45.6	−12.4	60.7	14 33.7	2.28	7 45	3.3	21 8	1.3
20	11 17 29	143	+ 0 44.1	−12.6	60.1	15 27.4	2.20	9 5	3.3	21 37	1.2
21	12 13 49	139	− 4 12.6	−12.0	59.4	16 19.7	2.15	10 23	3.2	22 5	1.2
22	13 9 14	138	− 8 46.5	−10.7	58.5	17 11.0	2.13	11 38	3.1	22 34	1.3
23	14 4 18	138	−12 43.0	− 8.9	57.7	18 2.0	2.13	12 51	3.0	23 5	1.4
24	14 59 21	138	−15 51.4	− 6.7	56.9	18 53.0	2.13	14 0	2.8	23 40	1.6

Tag	Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite
	0h Welt-Zeit									
1939	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Juli 24	14 17 30	53 12	−13 33.0	2 50.4	57 31.3	44.1	15 41.9	12.0	216.643	+0.198
25	15 10 42	53 15	−16 23.4	1 57.1	56 47.2	39.5	15 29.9	10.8	229.749	+1.337
26	16 3 57	53 3	−18 20.5	1 0.3	56 7.7	34.2	15 19.1	9.3	242.563	+2.382
27	16 57 0	52 31	−19 20.8	0 3.1	55 33.5	28.7	15 9.8	7.8	255.137	+3.289
28	17 49 31	51 31	−19 23.9	0 51.8	55 4.8	23.4	15 2.0	6.4	267.521	+4.024
29	18 41 2	50 12	−18 32.1	1 41.6	54 41.4	18.4	14 55.6	5.0	279.752	+4.563
30	19 31 14	48 42	−16 50.5	2 24.6	54 23.0	13.3	14 50.6	3.7	291.861	+4.889
31	20 19 56	47 14	−14 25.9	2 59.6	54 9.7	8.4	14 46.9	2.2	303.872	+4.994
Aug. 1	21 7 10	46 0	−11 26.3	3 26.1	54 1.3	2.9	14 44.7	0.8	315.805	+4.879
2	21 53 10	45 9	− 8 0.2	3 44.4	53 58.4	3.0	14 43.9	0.8	327.683	+4.552
3	22 38 19	44 48	− 4 15.8	3 54.4	54 1.4	9.7	14 44.7	2.6	339.532	+4.028
4	23 23 7	45 3	− 0 21.4	3 56.5	54 11.1	17.0	14 47.3	4.9	351.388	+3.328
5	0 8 10	45 56	+ 3 35.1	3 50.4	54 28.1	25.2	14 52.2	6.6	3.299	+2.477
6	0 54 6	47 29	+ 7 25.5	3 35.7	54 53.3	33.6	14 58.8	9.2	15.325	+1.507
7	1 41 35	49 40	+11 1.2	3 11.0	55 26.9	41.8	15 8.0	11.4	27.536	+0.451
8	2 31 15	52 19	+14 12.2	2 35.3	56 8.7	49.3	15 19.4	13.4	40.010	−0.650
9	3 23 34	55 13	+16 47.5	1 47.1	56 58.0	54.8	15 32.8	14.9	52.829	−1.749
10	4 18 47	57 57	+18 34.6	0 46.7	57 52.8	57.0	15 47.7	15.6	66.067	−2.789
11	5 16 44	60 4	+19 21.3	0 24.0	58 49.8	54.9	16 3.3	14.9	79.779	−3.707
12	6 16 48	61 11	+18 57.3	1 39.4	59 44.7	47.3	16 18.2	12.9	93.984	−4.432
13	7 17 59	61 11	+17 17.9	2 51.7	60 32.0	34.1	16 31.1	9.3	108.651	−4.893
14	8 19 10	60 16	+14 26.2	3 52.5	61 6.1	16.6	16 40.4	4.5	123.690	−5.032
15	9 19 26	58 52	+10 33.7	4 34.8	61 22.7	3.5	16 44.9	0.9	138.951	−4.818
16	10 18 18	57 25	+ 5 58.9	4 55.2	61 19.2	22.7	16 44.0	6.2	154.253	−4.260
17	11 15 43	56 12	+ 1 3.7	4 53.7	60 56.5	38.7	16 37.8	10.6	169.407	−3.405
18	12 11 55	55 21	− 3 50.0	4 32.7	60 17.8	49.7	16 27.2	13.5	184.257	−2.332
19	13 7 16	54 48	− 8 22.7	3 56.2	59 28.1	55.0	16 13.7	15.0	198.699	−1.135
20	14 2 4	54 28	−12 18.9	3 8.7	58 33.1	55.4	15 58.7	15.1	212.685	+0.098
21	14 56 32	54 8	−15 27.6	2 14.2	57 37.7	52.1	15 43.6	14.2	226.219	+1.287
22	15 50 40	53 37	−17 41.8	1 16.3	56 45.6	46.1	15 29.4	12.5	239.339	+2.373
23	16 44 17	52 49	−18 58.1	0 18.3	55 59.5	38.7	15 16.9	10.6	252.105	+3.309
24	17 37 6	51 42	−19 16.4	0 37.0	55 20.8	31.0	15 6.3	8.4	264.584	+4.064
25	18 28 48	50 20	−18 39.4	1 27.5	54 49.8	23.2	14 57.9	6.4	276.842	+4.617
26	19 19 8	48 52	−17 11.9	2 11.6	54 26.6	16.0	14 51.5	4.3	288.937	+4.955
27	20 8 0	47 28	−15 0.3	2 48.5	54 10.6	9.4	14 47.2	2.6	300.921	+5.071
28	20 55 28	46 16	−12 11.8	3 17.4	54 1.2	3.5	14 44.6	0.9	312.834	+4.965
29	21 41 44	45 26	− 8 54.4	3 38.2	53 57.7	2.1	14 43.7	0.5	324.708	+4.644
30	22 27 10	45 1	− 5 16.2	3 50.9	53 59.8	7.3	14 44.2	2.0	336.572	+4.122
31	23 12 11	45 7	− 1 25.3	3 55.2	54 7.1	12.6	14 46.2	3.5	348.451	+3.418
Sept. 1	23 57 18	45 45	+ 2 29.9	3 51.0	54 19.7	18.1	14 49.7	4.9	0.375	+2.561
2	0 43 3	46 56	+ 6 20.9	3 37.9	54 37.8	24.1	14 54.6	6.6	12.377	+1.582
3	1 29 59		+ 9 58.8		55 1.9		15 1.2		24.499	+0.520

Tag	Obere Kulmination in Greenwich: AR.	Änderung für 1ʰ westl. Länge	Dekl.	Änderung für 1ʰ westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1ʰ westl. Länge	0ʰ Länge, + 50° Breite: Aufgang	Änderung für 1ʰ westl. Länge	Untergang	Änderung für 1ʰ westl. Länge
1939	h m s	s	° '	'	'	h m	m	h m	m	h m	m
Juli 24	14 59 21	138	−15 51.4	− 6.7	56.9	18 53.0	2.13	14 0	2.8	23 40	1.6
25	15 54 29	138	−18 3.8	− 4.3	56.2	19 44.0	2.13	15 5	2.6	— —	—
26	16 49 29	137	−19 15.8	− 1.7	55.6	20 34.9	2.11	16 4	2.3	0 20	1.8
27	17 43 55	135	−19 26.3	+ 0.8	55.1	21 25.3	2.08	16 57	2.0	1 4	2.0
28	18 37 18	132	−18 37.7	+ 3.2	54.7	22 14.6	2.03	17 42	1.8	1 54	2.2
29	19 29 15	128	−16 55.4	+ 5.3	54.4	23 2.5	1.96	18 22	1.5	2 50	2.4
30	20 19 33	124	−14 27.2	+ 7.0	54.2	23 48.7	1.89	18 55	1.3	3 48	2.5
31	— — —	—	— —	—	—	— —	—	19 24	1.1	4 49	2.5
Aug. 1	21 8 14	120	−11 21.8	+ 8.4	54.0	0 33.3	1.83	19 49	1.0	5 50	2.6
2	21 55 35	117	− 7 48.6	+ 9.3	54.0	1 16.6	1.78	20 13	1.0	6 52	2.6
3	22 42 1	115	− 3 56.7	+ 9.9	54.0	1 59.0	1.75	20 36	0.9	7 54	2.6
4	23 28 8	115	+ 0 5.1	+10.2	54.2	2 41.0	1.75	20 58	1.0	8 56	2.6
5	0 14 35	117	+ 4 8.2	+10.0	54.5	3 23.4	1.79	21 22	1.0	9 59	2.6
6	1 2 7	121	+ 8 3.8	+ 9.5	55.0	4 6.9	1.85	21 48	1.1	11 3	2.7
7	1 51 28	126	+11 42.3	+ 8.6	55.6	4 52.2	1.93	22 17	1.3	12 7	2.7
8	2 43 21	133	+14 52.6	+ 7.2	56.3	5 40.0	2.05	22 52	1.6	13 13	2.7
9	3 38 16	141	+17 21.9	+ 5.2	57.2	6 30.8	2.19	23 34	1.9	14 17	2.6
10	4 36 24	149	+18 56.1	+ 2.6	58.2	7 24.9	2.32	— —	—	15 20	2.5
11	5 37 28	156	+19 21.3	− 0.5	59.2	8 21.9	2.42	0 25	2.4	16 18	2.3
12	6 40 34	159	+18 27.6	− 4.0	60.1	9 20.8	2.48	1 27	2.8	17 9	2.0
13	7 44 25	159	+16 12.3	− 7.3	60.8	10 20.6	2.48	2 38	3.1	17 54	1.7
14	8 47 46	157	+12 43.0	−10.1	61.3	11 19.8	2.45	3 55	3.3	18 32	1.5
15	9 49 47	153	+ 8 16.9	−12.0	61.4	12 17.7	2.38	5 16	3.4	19 6	1.4
16	10 50 8	149	+ 3 17.2	−12.8	61.1	13 14.0	2.31	6 38	3.4	19 37	1.3
17	11 48 58	146	− 1 50.9	−12.7	60.6	14 8.7	2.26	7 59	3.3	20 6	1.2
18	12 46 40	143	− 6 44.4	−11.6	59.8	15 2.4	2.22	9 18	3.2	20 36	1.3
19	13 43 40	142	−11 4.2	− 9.9	58.9	15 55.3	2.19	10 34	3.1	21 7	1.4
20	14 40 13	141	−14 36.5	− 7.7	57.9	16 47.7	2.18	11 47	2.9	21 42	1.5
21	15 36 25	140	−17 11.9	− 5.2	57.0	17 39.8	2.16	12 55	2.7	22 20	1.7
22	16 32 7	138	−18 45.8	− 2.6	56.2	18 31.5	2.14	13 57	2.4	23 3	1.9
23	17 27 0	136	−19 17.3	0.0	55.5	19 22.3	2.10	14 52	2.1	23 52	2.1
24	18 20 42	133	−18 48.8	+ 2.4	54.9	20 11.9	2.03	15 40	1.9	— —	—
25	19 12 55	129	−17 25.4	+ 4.5	54.5	21 0.0	1.98	16 21	1.6	0 46	2.3
26	20 3 32	125	−15 14.2	+ 6.4	54.2	21 46.6	1.91	16 57	1.4	1 42	2.4
27	20 52 35	121	−12 23.1	+ 7.8	54.0	22 31.6	1.84	17 27	1.2	2 42	2.5
28	21 40 19	118	− 9 0.9	+ 8.9	54.0	23 15.2	1.80	17 54	1.1	3 43	2.5
29	22 27 6	116	− 5 16.5	+ 9.7	54.0	23 58.0	1.77	18 18	1.0	4 44	2.5
30	— — —	—	— —	—	—	— —	—	18 42	1.0	5 46	2.6
31	23 13 26	116	− 1 18.7	+10.1	54.1	0 40.2	1.76	19 4	1.0	6 49	2.6
Sept. 1	23 59 54	117	+ 2 43.4	+10.1	54.3	1 22.6	1.78	19 28	1.0	7 51	2.6
2	0 47 5	119	+ 6 40.6	+ 9.7	54.7	2 5.8	1.82	19 53	1.1	8 54	2.6
3	1 35 38	124	+10 23.2	+ 8.8	55.1	2 50.2	1.89	20 21	1.3	9 58	2.7

Tag	0ʰ Welt-Zeit									
	Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite
1939	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Sept. 3	1 29 59	48 38	+ 9 58.8	3 15.2	55 1.9	30.3	15 1.2	8.2	24.499	+0.520
4	2 18 37	50 45	+13 14.0	2 42.5	55 32.2	36.8	15 9.4	10.1	36.794	−0.584
5	3 9 22	53 8	+15 56.5	1 59.0	56 9.0	43.0	15 19.5	11.7	49.320	−1.683
6	4 2 30	55 29	+17 55.5	1 4.9	56 52.0	48.1	15 31.2	13.1	62.144	−2.724
7	4 57 59	57 29	+19 0.4	0 1.8	57 40.1	51.3	15 44.3	13.9	75.328	−3.651
8	5 55 28	58 52	+19 2.2	1 7.4	58 31.4	51.1	15 58.2	14.0	88.925	−4.405
9	6 54 20	59 29	+17 54.8	2 17.1	59 22.5	46.8	16 12.2	12.7	102.963	−4.922
10	7 53 49	59 22	+15 37.7	3 20.9	60 9.3	37.2	16 24.9	10.2	117.432	−5.147
11	8 53 11	58 45	+12 16.8	4 12.0	60 46.5	22.9	16 35.1	6.2	132.272	−5.039
12	9 51 56	58 0	+ 8 4.8	4 45.1	61 9.4	4.7	16 41.3	1.3	147.372	−4.582
13	10 49 56	57 19	+ 3 19.7	4 56.8	61 14.1	14.5	16 42.6	4.0	162.578	−3.800
14	11 47 15	56 49	− 1 37.1	4 46.9	60 59.6	32.2	16 38.6	8.8	177.719	−2.753
15	12 44 4	56 31	− 6 24.0	4 17.4	60 27.4	46.1	16 29.8	12.5	192.630	−1.531
16	13 40 35	56 16	−10 41.4	3 32.6	59 41.3	54.5	16 17.3	14.9	207.186	−0.233
17	14 36 51	55 53	−14 14.0	2 37.5	58 46.8	57.4	16 2.4	15.6	221.310	+1.044
18	15 32 44	55 13	−16 51.5	1 37.2	57 49.4	55.6	15 46.8	15.2	234.975	+2.221
19	16 27 57	54 9	−18 28.7	0 36.4	56 53.8	50.2	15 31.6	13.6	248.199	+3.241
20	17 22 6	52 44	−19 5.1	0 21.6	56 3.6	42.4	15 18.0	11.6	261.026	+4.066
21	18 14 50	51 5	−18 43.5	1 13.9	55 21.2	33.4	15 6.4	9.1	273.522	+4.674
22	19 5 55	49 22	−17 29.6	1 59.7	54 47.8	24.0	14 57.3	6.5	285.758	+5.055
23	19 55 17	47 49	−15 29.9	2 37.8	54 23.8	14.9	14 50.8	4.1	297.807	+5.206
24	20 43 6	46 31	−12 52.1	3 8.6	54 8.9	6.5	14 46.7	1.8	309.735	+5.130
25	21 29 37	45 37	− 9 43.5	3 31.5	54 2.4	0.9	14 44.9	0.3	321.603	+4.834
26	22 15 14	45 12	− 6 12.0	3 46.9	54 3.3	7.3	14 45.2	2.0	333.461	+4.331
27	23 0 26	45 17	− 2 25.1	3 54.1	54 10.6	12.7	14 47.2	3.4	345.353	+3.638
28	23 45 43	45 53	+ 1 29.0	3 52.7	54 23.3	17.2	14 50.6	4.7	357.313	+2.781
29	0 31 36	47 0	+ 5 21.7	3 42.0	54 40.5	21.1	14 55.3	5.8	9.370	+1.792
30	1 18 36	48 32	+ 9 3.7	3 21.5	55 1.6	24.7	15 1.1	6.7	21.552	+0.710
Okt. 1	2 7 8	50 26	+12 25.2	2 50.5	55 26.3	28.1	15 7.8	7.7	33.885	−0.421
2	2 57 34	52 27	+15 15.7	2 8.8	55 54.4	31.5	15 15.5	8.6	46.399	−1.549
3	3 50 1	54 24	+17 24.5	1 17.4	56 25.9	34.8	15 24.1	9.4	59.125	−2.621
4	4 44 25	56 0	+18 41.9	0 17.8	57 0.7	37.8	15 33.5	10.3	72.100	−3.580
5	5 40 25	57 3	+18 59.7	0 46.7	57 38.5	39.8	15 43.8	10.9	85.358	−4.371
6	6 37 28	57 30	+18 13.0	1 52.2	58 18.3	40.0	15 54.7	10.9	98.928	−4.939
7	7 34 58	57 26	+16 20.8	2 53.5	58 58.3	37.6	16 5.6	10.2	112.829	−5.235
8	8 32 24	57 2	+13 27.3	3 45.8	59 35.9	31.6	16 15.8	8.6	127.054	−5.223
9	9 29 26	56 37	+ 9 41.5	4 24.8	60 7.5	21.8	16 24.4	6.0	141.571	−4.881
10	10 26 3	56 22	+ 5 16.7	4 46.5	60 29.3	8.6	16 30.4	2.3	156.309	−4.215
11	11 22 25	56 23	+ 0 30.2	4 48.8	60 37.9	7.0	16 32.7	1.9	171.168	−3.262
12	12 18 48	56 38	− 4 18.6	4 31.0	60 30.9	22.8	16 30.8	6.2	186.022	−2.089
13	13 15 26	56 59	− 8 49.6	3 55.0	60 8.1	36.7	16 24.6	10.0	200.741	−0.785
14	14 12 25		−12 44.6		59 31.4		16 14.6		215.207	+0.549

Tag	Obere Kulmination in Greenwich: AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	0h Länge, + 50° Breite: Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1939	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Sept. 3	1 35 38	124	+10 23.2	+ 8.8	55.1	2 50.2	1.89	20 21	1.3	9 58	2.7
4	2 26 6	129	+13 40.8	+ 7.6	55.6	3 36.7	1.98	20 53	1.5	11 2	2.7
5	3 18 59	135	+16 22.0	+ 5.8	56.3	4 25.4	2.09	21 32	1.8	12 6	2.6
6	4 14 31	142	+18 14.8	+ 3.5	57.0	5 16.9	2.20	22 18	2.1	13 8	2.5
7	5 12 37	148	+19 7.2	+ 0.8	57.9	6 10.9	2.30	23 13	2.3	14 6	2.3
8	6 12 49	153	+18 49.5	− 2.3	58.8	7 7.0	2.37	— —	—	14 58	2.0
9	7 14 19	155	+17 16.3	− 5.4	59.6	8 4.4	2.40	0 17	2.8	15 44	1.8
10	8 16 13	155	+14 29.0	− 8.4	60.4	9 2.2	2.40	1 29	3.1	16 24	1.6
11	9 17 44	153	+10 37.1	−10.8	61.0	9 59.6	2.38	2 46	3.3	17 0	1.4
12	10 18 28	151	+ 5 57.7	−12.3	61.2	10 56.3	2.34	4 7	3.4	17 32	1.3
13	11 18 21	149	+ 0 53.0	−12.9	61.2	11 52.1	2.31	5 28	3.4	18 3	1.3
14	12 17 34	147	− 4 12.5	−12.4	60.7	12 47.2	2.29	6 49	3.4	18 33	1.3
15	13 16 21	147	− 8 55.6	−11.0	60.0	13 41.9	2.27	8 9	3.3	19 5	1.4
16	14 14 51	146	−12 56.9	− 9.0	59.1	14 36.3	2.26	9 26	3.1	19 39	1.5
17	15 13 1	145	−16 2.5	− 6.4	58.2	15 30.4	2.24	10 38	2.9	20 17	1.7
18	16 10 33	143	−18 4.6	− 3.7	57.2	16 23.8	2.21	11 45	2.6	21 0	1.9
19	17 7 2	140	−19 0.9	− 1.0	56.3	17 16.2	2.15	12 44	2.3	21 47	2.1
20	18 2 3	135	−18 53.9	+ 1.5	55.5	18 7.1	2.08	13 36	2.0	22 40	2.3
21	18 55 17	131	−17 49.2	+ 3.8	54.9	18 56.3	2.01	14 20	1.7	23 36	2.4
22	19 46 37	126	−15 54.3	+ 5.7	54.5	19 43.6	1.93	14 57	1.4	— —	—
23	20 36 11	122	−13 17.3	+ 7.3	54.2	20 29.0	1.86	15 29	1.3	0 35	2.5
24	21 24 16	119	−10 6.7	+ 8.5	54.0	21 13.1	1.81	15 57	1.1	1 36	2.5
25	22 11 20	117	− 6 30.9	+ 9.4	54.0	21 56.1	1.78	16 22	1.0	2 36	2.5
26	22 57 53	116	− 2 38.2	+ 9.9	54.2	22 38.6	1.77	16 46	1.0	3 38	2.6
27	23 44 29	117	+ 1 22.6	+10.1	54.4	23 21.1	1.78	17 9	1.0	4 40	2.6
28	— — —	—	— —	—	—	— —	—	17 33	1.0	5 43	2.6
29	0 31 44	119	+ 5 22.4	+ 9.8	54.7	0 4.3	1.82	17 58	1.1	6 46	2.6
30	1 20 13	123	+ 9 10.9	+ 9.1	55.0	0 48.7	1.88	18 25	1.2	7 50	2.7
Okt. 1	2 10 24	128	+12 37.5	+ 8.0	55.5	1 34.8	1.96	18 56	1.4	8 55	2.7
2	3 2 41	134	+15 30.5	+ 6.3	56.0	2 23.0	2.06	19 33	1.7	9 59	2.6
3	3 57 13	139	+17 38.1	+ 4.2	56.5	3 13.5	2.15	20 16	2.0	11 1	2.5
4	4 53 53	144	+18 49.3	+ 1.7	57.1	4 6.1	2.23	21 7	2.3	11 59	2.3
5	5 52 15	148	+18 55.4	− 1.2	57.8	5 0.3	2.29	22 6	2.6	12 52	2.1
6	6 51 39	149	+17 51.3	− 4.1	58.5	5 55.7	2.32	23 13	2.9	13 39	1.8
7	7 51 24	149	+15 37.2	− 7.0	59.2	6 51.3	2.32	— —	—	14 20	1.6
8	8 50 56	148	+12 19.3	− 9.4	59.8	7 46.7	2.30	0 26	3.1	14 56	1.4
9	9 49 59	147	+ 8 9.2	−11.3	60.3	8 41.7	2.28	1 42	3.2	15 29	1.3
10	10 48 37	146	+ 3 23.6	−12.4	60.6	9 36.2	2.27	3 0	3.3	15 59	1.3
11	11 47 5	146	− 1 37.2	−12.5	60.6	10 30.6	2.27	4 20	3.3	16 29	1.3
12	12 45 42	147	− 6 30.9	−11.8	60.4	11 25.1	2.28	5 40	3.3	17 0	1.3
13	13 44 41	148	−10 55.9	−10.2	59.8	12 20.0	2.30	6 58	3.2	17 33	1.5
14	14 43 59	148	−14 33.4	− 7.9	59.1	13 15.2	2.30	8 14	3.1	18 10	1.6

Tag	0h Welt-Zeit Scheinbare Rektaszension (h m s)	Diff. (m s)	Scheinbare Deklination (° ′)	Diff. (° ′)	Parallaxe (′ ″)	Diff. (″)	Halbmesser (′ ″)	Diff. (″)	Länge (°)	Breite (°)
1939										
Okt. 14	14 12 25	57 8	−12 44.6	3 4.2	59 31.4	46.8	16 14.6	12.8	215.207	+0.549
15	15 9 33	56 52	−15 48.8	2 4.1	58 44.6	52.3	16 1.8	14.2	229.328	+1.818
16	16 6 25	56 0	−17 52.9	1 0.4	57 52.3	53.1	15 47.6	14.5	243.052	+2.946
17	17 2 25	54 32	−18 53.3	0 1.7	56 59.2	49.6	15 33.1	13.5	256.362	+3.878
18	17 56 57	52 40	−18 51.6	0 58.3	56 9.6	43.1	15 19.6	11.7	269.277	+4.584
19	18 49 37	50 36	−17 53.3	1 47.2	55 26.5	34.4	15 7.9	9.4	281.842	+5.048
20	19 40 13	48 40	−16 6.1	2 27.8	54 52.1	24.5	14 58.5	6.7	294.118	+5.269
21	20 28 53	47 1	−13 38.3	3 0.1	54 27.6	14.3	14 51.8	3.9	306.178	+5.253
22	21 15 54	45 51	−10 38.2	3 24.9	54 13.3	4.4	14 47.9	1.2	318.100	+5.010
23	22 1 45	45 14	− 7 13.3	3 42.3	54 8.9	4.7	14 46.7	1.3	329.958	+4.555
24	22 46 59	45 12	− 3 31.0	3 52.0	54 13.6	12.7	14 48.0	3.4	341.822	+3.905
25	23 32 11	45 47	+ 0 21.0	3 54.0	54 26.3	19.1	14 51.4	5.3	353.755	+3.082
26	0 17 58	46 56	+ 4 15.0	3 47.0	54 45.4	23.9	14 56.7	6.5	5.810	+2.115
27	1 4 54	48 35	+ 8 2.0	3 30.0	55 9.3	27.1	15 3.2	7.4	18.029	+1.038
28	1 53 29	50 34	+11 32.0	3 1.9	55 36.4	28.9	15 10.6	7.8	30.444	−0.104
29	2 44 3	52 42	+14 33.9	2 22.2	56 5.3	29.5	15 18.4	8.1	43.073	−1.261
30	3 36 45	54 39	+16 56.1	1 31.8	56 34.8	29.1	15 26.5	7.9	55.927	−2.373
31	4 31 24	56 10	+18 27.9	0 32.4	57 3.9	28.4	15 34.4	7.8	69.009	−3.381
Nov. 1	5 27 34	56 58	+19 0.3	0 31.9	57 32.3	27.4	15 42.2	7.4	82.315	−4.224
2	6 24 32	57 3	+18 28.4	1 36.5	57 59.7	26.1	15 49.6	7.1	95.837	−4.847
3	7 21 35	56 33	+16 51.9	2 36.6	58 25.8	24.4	15 56.7	6.7	109.565	−5.205
4	8 18 8	55 45	+14 15.3	3 27.9	58 50.2	21.8	16 3.4	5.9	123.486	−5.265
5	9 13 53	55 1	+10 47.4	4 7.3	59 12.0	17.7	16 9.3	4.8	137.579	−5.012
6	10 8 54	54 34	+ 6 40.1	4 32.3	59 29.7	11.6	16 14.1	3.2	151.819	−4.452
7	11 3 28	54 35	+ 2 7.8	4 41.2	59 41.3	3.6	16 17.3	1.0	166.167	−3.611
8	11 58 3	55 1	− 2 33.4	4 32.8	59 44.9	6.3	16 18.3	1.8	180.570	−2.539
9	12 53 4	55 47	− 7 6.2	4 7.0	59 38.6	17.2	16 16.5	4.6	194.963	−1.308
10	13 48 51	56 35	−11 13.2	3 25.3	59 21.4	27.7	16 11.9	7.6	209.271	−0.003
11	14 45 26	57 4	−14 38.5	2 30.7	58 53.7	36.5	16 4.3	9.9	223.414	+1.287
12	15 42 30	56 57	−17 9.2	1 28.2	58 17.2	42.5	15 54.4	11.6	237.318	+2.476
13	16 39 27	56 3	−18 37.4	0 23.8	57 34.7	45.0	15 42.8	12.3	250.923	+3.497
14	17 35 30	54 25	−19 1.2	0 37.3	56 49.7	43.9	15 30.5	11.9	264.195	+4.301
15	18 29 55	52 20	−18 23.9	1 31.3	56 5.8	39.4	15 18.6	10.8	277.122	+4.862
16	19 22 15	50 5	−16 52.6	2 16.1	55 26.4	32.5	15 7.8	8.8	289.721	+5.171
17	20 12 20	48 2	−14 36.5	2 51.6	54 53.9	23.6	14 59.0	6.4	302.034	+5.233
18	21 0 22	46 25	−11 44.9	3 18.4	54 30.3	13.4	14 52.6	3.7	314.117	+5.060
19	21 46 47	45 22	− 8 26.5	3 37.3	54 16.9	2.9	14 48.9	0.8	326.045	+4.669
20	22 32 9	44 59	− 4 49.2	3 49.0	54 14.0	7.5	14 48.1	2.1	337.897	+4.082
21	23 17 8	45 17	− 1 0.2	3 53.4	54 21.5	17.1	14 50.2	4.6	349.756	+3.320
22	0 2 25	46 17	+ 2 53.2	3 50.1	54 38.6	25.3	14 54.8	6.9	1.704	+2.408
23	0 48 42	47 55	+ 6 43.3	3 37.7	55 3.9	31.7	15 1.7	8.6	13.815	+1.379
24	1 36 37		+10 21.0		55 35.6		15 10.3		26.153	+0.267

Tag	Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1939	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Okt. 14	14 43 59	148	−14 33.4	− 7.9	59.1	13 15.2	2.30	8 14	3.1	18 10	1.6
15	15 43 12	148	−17 9.7	− 5.1	58.2	14 10.4	2.29	9 25	2.8	18 51	1.8
16	16 41 45	145	−18 38.3	− 2.3	57.3	15 4.8	2.25	10 29	2.5	19 38	2.1
17	17 38 53	141	−18 58.8	+ 0.5	56.4	15 57.9	2.17	11 26	2.2	20 30	2.3
18	18 34 4	135	−18 16.2	+ 3.0	55.6	16 49.0	2.08	12 14	1.9	21 26	2.4
19	19 26 59	129	−16 38.9	+ 5.1	55.0	17 37.8	1.99	12 55	1.6	22 25	2.5
20	20 17 42	124	−14 16.0	+ 6.8	54.5	18 24.5	1.90	13 30	1.4	23 25	2.5
21	21 6 31	120	−11 16.8	+ 8.1	54.3	19 9.2	1.83	13 59	1.1	— —	—
22	21 53 56	117	− 7 49.9	+ 9.1	54.1	19 52.6	1.79	14 25	1.1	0 27	2.6
23	22 40 34	116	− 4 3.4	+ 9.7	54.2	20 35.1	1.77	14 50	1.0	1 28	2.6
24	23 27 4	117	− 0 5.4	+10.0	54.4	21 17.6	1.78	15 13	1.0	2 30	2.6
25	0 14 8	119	+ 3 55.7	+10.0	54.7	22 0.6	1.81	15 36	1.0	3 32	2.6
26	1 2 25	123	+ 7 50.5	+ 9.5	55.1	22 44.8	1.88	16 1	1.1	4 36	2.7
27	1 52 29	128	+11 27.9	+ 8.5	55.6	23 30.8	1.96	16 27	1.2	5 40	2.7
28	— — —	—	— —	—	—	— —	—	16 58	1.4	6 45	2.7
29	2 44 44	134	+14 36.0	+ 7.0	56.1	0 19.0	2.06	17 32	1.6	7 50	2.7
30	3 39 21	139	+17 1.8	+ 5.0	56.6	1 9.5	2.15	18 14	1.9	8 54	2.6
31	4 36 7	144	+18 33.0	+ 2.5	57.1	2 2.2	2.23	19 3	2.2	9 54	2.4
Nov. 1	5 34 31	147	+18 59.9	− 0.3	57.6	2 56.5	2.28	20 0	2.5	10 49	2.2
2	6 33 43	148	+18 17.2	− 3.2	58.1	3 51.6	2.30	21 5	2.8	11 38	1.9
3	7 32 53	147	+16 25.3	− 6.0	58.5	4 46.7	2.28	22 14	3.0	12 20	1.6
4	8 31 25	145	+13 30.3	− 8.5	58.9	5 41.1	2.25	23 27	3.1	12 57	1.5
5	9 29 2	143	+ 9 42.9	−10.4	59.3	6 34.6	2.21	— —	—	13 30	1.3
6	10 25 53	141	+ 5 17.4	−11.6	59.6	7 27.4	2.19	0 43	3.2	14 0	1.2
7	11 22 24	141	+ 0 30.3	−12.2	59.7	8 19.8	2.19	1 59	3.2	14 28	1.2
8	12 19 5	142	− 4 20.0	−11.9	59.7	9 12.5	2.20	3 16	3.2	14 58	1.3
9	13 16 26	144	− 8 54.2	−10.8	59.5	10 5.7	2.24	4 33	3.2	15 29	1.4
10	14 14 41	147	−12 53.3	− 9.0	59.2	10 59.9	2.28	5 49	3.1	16 3	1.5
11	15 13 44	148	−16 0.7	− 6.5	58.6	11 54.8	2.30	7 2	2.9	16 42	1.7
12	16 13 1	148	−18 4.4	− 3.7	57.9	12 50.0	2.29	8 10	2.7	17 26	2.0
13	17 11 43	145	−18 58.8	− 0.8	57.2	13 44.6	2.25	9 12	2.4	18 16	2.2
14	18 8 54	140	−18 45.3	+ 1.9	56.4	14 37.7	2.17	10 5	2.0	19 12	2.4
15	19 3 55	134	−17 30.6	+ 4.3	55.7	15 28.7	2.07	10 50	1.7	20 11	2.5
16	19 56 28	128	−15 24.6	+ 6.2	55.1	16 17.1	1.97	11 28	1.5	21 12	2.5
17	20 46 39	123	−12 37.7	+ 7.7	54.6	17 3.2	1.88	12 0	1.3	22 13	2.6
18	21 34 54	119	− 9 20.0	+ 8.8	54.3	17 47.4	1.81	12 28	1.3	23 15	2.6
19	22 21 50	116	− 5 40.2	+ 9.5	54.2	18 30.3	1.77	12 52	1.2	— —	—
20	23 8 9	116	− 1 46.5	+ 9.9	54.3	19 12.6	1.76	13 16	1.0	0 17	2.6
21	23 54 40	117	+ 2 13.5	+10.0	54.6	19 55.0	1.78	13 39	1.0	1 19	2.6
22	0 42 8	121	+ 6 11.6	+ 9.8	55.0	20 38.4	1.84	14 3	1.0	2 21	2.6
23	1 31 19	126	+ 9 58.2	+ 9.0	55.5	21 23.5	1.93	14 28	1.1	3 25	2.7
24	2 22 49	132	+13 21.9	+ 7.8	56.1	22 11.0	2.03	14 57	1.3	4 30	2.7

Tag	0ʰ Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite
1939	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Nov. 24	1 36 37	50 4	+10 21.0	3 14.6	55 35.6	35.7	15 10.3	9.8	26.153	+0.267
25	2 26 41	52 32	+13 35.6	2 39.5	56 11.3	37.2	15 20.1	10.1	38.767	−0.879
26	3 19 13	54 58	+16 15.1	1 52.1	56 48.5	36.0	15 30.2	9.8	51.685	−2.006
27	4 14 11	56 57	+18 7.2	0 53.4	57 24.5	32.6	15 40.0	8.9	64.913	−3.050
28	5 11 8	58 8	+19 0.6	0 12.7	57 57.1	27.5	15 48.9	7.5	78.431	−3.945
29	6 9 16	58 20	+18 47.9	1 20.7	58 24.6	21.3	15 56.4	5.8	92.200	−4.628
30	7 7 36	57 38	+17 27.2	2 24.2	58 45.9	14.9	16 2.2	4.1	106.163	−5.047
Dez. 1	8 5 14	56 25	+15 3.0	3 18.2	59 0.8	9.0	16 6.3	2.4	120.256	−5.167
2	9 1 39	55 4	+11 44.8	3 59.0	59 9.8	3.8	16 8.7	1.0	134.417	−4.973
3	9 56 43	54 0	+ 7 45.8	4 24.9	59 13.6	0.9	16 9.7	0.2	148.595	−4.476
4	10 50 43	53 25	+ 3 20.9	4 35.4	59 12.7	5.3	16 9.5	1.5	162.749	−3.708
5	11 44 8	53 25	− 1 14.5	4 30.6	59 7.4	9.7	16 8.0	2.6	176.852	−2.717
6	12 37 33	53 57	− 5 45.1	4 10.5	58 57.7	14.4	16 5.4	3.9	190.885	−1.568
7	13 31 30	54 48	− 9 55.6	3 36.2	58 43.3	19.5	16 1.5	5.3	204.828	−0.333
8	14 26 18	55 41	−13 31.8	2 49.0	58 23.8	24.8	15 56.2	6.8	218.660	+0.909
9	15 21 59	56 13	−16 20.8	1 52.1	57 59.0	29.5	15 49.4	8.0	232.352	+2.083
10	16 18 12	56 5	−18 12.9	0 49.8	57 29.5	33.2	15 41.4	9.1	245.870	+3.122
11	17 14 17	55 9	−19 2.7	0 12.8	56 56.3	35.2	15 32.3	9.6	259.176	+3.972
12	18 9 26	53 32	−18 49.9	1 10.5	56 21.1	35.0	15 22.7	9.5	272.240	+4.594
13	19 2 58	51 28	−17 39.4	2 0.4	55 46.1	32.3	15 13.2	8.8	285.040	+4.970
14	19 54 26	49 18	−15 39.0	2 40.3	55 13.8	27.3	15 4.4	7.4	297.573	+5.097
15	20 43 44	47 22	−12 58.7	3 10.8	54 46.5	20.3	14 57.0	5.6	309.856	+4.984
16	21 31 6	45 53	− 9 47.9	3 32.0	54 26.2	11.5	14 51.4	3.1	321.927	+4.648
17	22 16 59	45 0	− 6 15.9	3 45.4	54 14.7	1.6	14 48.3	0.4	333.843	+4.114
18	23 1 59	44 48	− 2 30.5	3 51.4	54 13.1	8.9	14 47.9	2.4	345.675	+3.406
19	23 46 47	45 21	+ 1 20.9	3 50.4	54 22.0	19.4	14 50.3	5.3	357.505	+2.552
20	0 32 8	46 37	+ 5 11.3	3 41.5	54 41.4	29.2	14 55.6	7.9	9.423	+1.581
21	1 18 45	48 35	+ 8 52.8	3 23.6	55 10.6	37.7	15 3.5	10.3	21.519	+0.526
22	2 7 20	51 5	+12 16.4	2 55.0	55 48.3	43.9	15 13.8	12.0	33.879	−0.575
23	2 58 25	53 52	+15 11.4	2 14.2	56 32.2	47.0	15 25.8	12.8	46.574	−1.674
24	3 52 17	56 33	+17 25.6	1 20.7	57 19.2	46.5	15 38.6	12.6	59.658	−2.717
25	4 48 50	58 39	+18 46.3	0 16.1	58 5.7	42.0	15 51.2	11.5	73.149	−3.638
26	5 47 29	59 44	+19 2.4	0 54.5	58 47.7	34.0	16 2.7	9.2	87.033	−4.372
27	6 47 13	59 39	+18 7.9	2 4.5	59 21.7	23.2	16 11.9	6.4	101.249	−4.854
28	7 46 52	58 39	+16 3.4	3 6.3	59 44.9	11.1	16 18.3	3.0	115.705	−5.036
29	8 45 31	57 6	+12 57.1	3 53.9	59 56.0	0.6	16 21.3	0.2	130.284	−4.894
30	9 42 37	55 32	+ 9 3.2	4 24.7	59 55.4	10.9	16 21.1	2.9	144.868	−4.434
31	10 38 9	54 18	+ 4 38.5	4 37.7	59 44.5	18.7	16 18.2	5.1	159.354	−3.692
32	11 32 27		+ 0 0.8		59 25.8		16 13.1		173.670	−2.724

Tag	Obere Kulmination in Greenwich: AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	0h Länge, + 50° Breite: Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1939	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Nov. 24	2 22 49	132	+13 21.9	+ 7.8	56.1	22 11.0	2.03	14 57	1.3	4 30	2.7
25	3 17 1	139	+16 9.5	+ 6.0	56.8	23 1.1	2.15	15 30	1.5	5 35	2.7
26	4 13 57	145	+18 6.8	+ 3.7	57.4	23 53.9	2.25	16 9	1.8	6 41	2.7
27	— — —	—	— —	—	—	— —	—	16 56	2.1	7 44	2.5
28	5 13 6	150	+19 1.3	+ 0.8	58.0	0 49.0	2.33	17 52	2.5	8 43	2.3
29	6 13 32	152	+18 44.3	− 2.2	58.4	1 45.3	2.35	18 55	2.8	9 36	2.0
30	7 14 7	151	+17 14.1	− 5.2	58.8	2 41.8	2.34	20 4	3.0	10 21	1.8
Dez. 1	8 13 50	148	+14 36.2	− 7.8	59.0	3 37.4	2.29	21 18	3.1	11 0	1.5
2	9 12 8	144	+11 2.4	− 9.9	59.2	4 31.6	2.23	22 32	3.1	11 34	1.3
3	10 8 57	140	+ 6 47.9	−11.2	59.2	5 24.4	2.17	23 47	3.1	12 4	1.2
4	11 4 42	138	+ 2 9.4	−11.9	59.2	6 16.0	2.14	— —	—	12 33	1.2
5	11 59 57	138	− 2 36.0	−11.8	59.1	7 7.2	2.13	1 2	3.1	13 1	1.2
6	12 55 24	139	− 7 11.3	−11.0	58.9	7 58.6	2.15	2 17	3.1	13 30	1.3
7	13 51 35	142	−11 20.0	− 9.6	58.6	8 50.7	2.19	3 32	3.1	14 1	1.4
8	14 48 47	144	−14 46.7	− 7.5	58.2	9 43.8	2.23	4 44	2.9	14 37	1.6
9	15 46 51	146	−17 17.9	− 5.0	57.8	10 37.8	2.26	5 53	2.8	15 18	1.8
10	16 45 13	146	−18 44.7	− 2.2	57.2	11 32.0	2.25	6 57	2.5	16 5	2.1
11	17 43 0	143	−19 3.7	+ 0.6	56.6	12 25.7	2.21	7 54	2.2	16 58	2.3
12	18 39 20	138	−18 17.5	+ 3.2	56.0	13 18.0	2.13	8 44	1.9	17 55	2.5
13	19 33 32	133	−16 33.9	+ 5.4	55.4	14 8.1	2.04	9 25	1.6	18 56	2.6
14	20 25 21	127	−14 3.3	+ 7.1	54.9	14 55.8	1.94	10 1	1.4	19 58	2.6
15	21 14 53	121	−10 56.8	+ 8.4	54.5	15 41.3	1.85	10 30	1.1	21 1	2.6
16	22 2 36	118	− 7 24.7	+ 9.2	54.3	16 25.0	1.79	10 56	1.0	22 3	2.6
17	22 49 8	115	− 3 36.0	+ 9.8	54.2	17 7.4	1.75	11 20	1.0	23 4	2.6
18	23 35 14	115	+ 0 21.2	+10.0	54.3	17 49.5	1.76	11 43	1.0	— —	—
19	0 21 43	117	+ 4 19.3	+ 9.8	54.6	18 31.9	1.79	12 6	1.0	0 6	2.6
20	1 9 25	121	+ 8 10.1	+ 9.3	55.1	19 15.5	1.85	12 30	1.0	1 9	2.6
21	1 59 7	127	+11 44.3	+ 8.4	55.7	20 1.2	1.96	12 56	1.2	2 12	2.7
22	2 51 30	135	+14 50.3	+ 7.0	56.4	20 49.5	2.08	13 27	1.4	3 17	2.7
23	3 46 57	143	+17 14.8	+ 5.0	57.2	21 40.9	2.20	14 2	1.6	4 22	2.7
24	4 45 26	150	+18 43.2	+ 2.3	58.1	22 35.2	2.32	14 45	2.0	5 27	2.6
25	5 46 20	154	+19 2.8	− 0.8	58.8	23 32.0	2.40	15 37	2.4	6 29	2.5
26	— — —	—	— —	—	—	— —	—	16 39	2.7	7 26	2.2
27	6 48 28	156	+18 6.0	− 4.0	59.4	0 30.1	2.42	17 48	3.0	8 16	1.9
28	7 50 30	154	+15 53.6	− 7.0	59.8	1 28.0	2.40	19 2	3.1	8 59	1.7
29	8 51 20	150	+12 35.5	− 9.4	59.9	2 24.7	2.33	20 18	3.2	9 36	1.4
30	9 50 25	145	+ 8 27.9	−11.1	59.9	3 19.7	2.25	21 35	3.2	10 8	1.3
31	10 47 46	142	+ 3 50.2	−11.9	59.7	4 13.0	2.19	22 52	3.2	10 38	1.2

Mond 1939

Phasen des Mondes

1939		Welt-Zeit h	m	
Jan.	5	21	30	Vollmond
	12	13	10	Letztes Viertel
	20	13	27	Neumond
	28	15	0	Erstes Viertel
Febr.	4	7	55	Vollmond
	11	4	12	Letztes Viertel
	19	8	28	Neumond
	27	3	26	Erstes Viertel
März	5	18	0	Vollmond
	12	21	37	Letztes Viertel
	21	1	49	Neumond
	28	12	16	Erstes Viertel
April	4	4	18	Vollmond
	11	16	11	Letztes Viertel
	19	16	35	Neumond
	26	18	25	Erstes Viertel
Mai	3	15	15	Vollmond
	11	10	40	Letztes Viertel
	19	4	25	Neumond
	25	23	20	Erstes Viertel
Juni	2	3	11	Vollmond
	10	4	7	Letztes Viertel
	17	13	37	Neumond
	24	4	35	Erstes Viertel
Juli	1	16	16	Vollmond

1939		Welt-Zeit h	m	
Juli	9	19	49	Letztes Viertel
	16	21	3	Neumond
	23	11	34	Erstes Viertel
	31	6	37	Vollmond
Aug.	8	9	18	Letztes Viertel
	15	3	53	Neumond
	21	21	21	Erstes Viertel
	29	22	9	Vollmond
Sept.	6	20	24	Letztes Viertel
	13	11	22	Neumond
	20	10	34	Erstes Viertel
	28	14	27	Vollmond
Okt.	6	5	27	Letztes Viertel
	12	20	30	Neumond
	20	3	24	Erstes Viertel
	28	6	42	Vollmond
Nov.	4	13	12	Letztes Viertel
	11	7	54	Neumond
	18	23	21	Erstes Viertel
	26	21	54	Vollmond
Dez.	3	20	40	Letztes Viertel
	10	21	45	Neumond
	18	21	4	Erstes Viertel
	26	11	28	Vollmond
	33	4	56	Letztes Viertel

Mond in Erdnähe

1939		Welt-Zeit h
Jan.	6	11
Febr.	4	0
März	4	11
April	1	13
April	28	10
Mai	23	12
Juni	19	20
Juli	17	23
Aug.	15	8
Sept.	12	18
Okt.	11	1
Nov.	7	21
Dez.	3	7
Dez.	29	11

Mond in Erdferne

1939		Welt-Zeit h
Jan.	20	23
Febr.	17	2
März	16	15
April	13	9
Mai	11	5
Juni	7	23
Juli	5	14
Aug.	2	0
Aug.	29	3
Sept.	25	9
Okt.	22	23
Nov.	19	19
Dez.	17	16

Tag		0h Welt-Zeit Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	log Δ	Diff.	Obere Kulmination in Greenwich
1939		h m s	m s	° ′ ″	′ ″			h m
Jan.	0	17 1 29.97	3 25.62	−20 26 17.6	12 48.6	9.975 881	9 629	10 26.2
	1	17 4 55.59	3 44.80	20 39 6.2	13 11.9	9.985 510	9 256	10 25.8
	2	17 8 40.39	4 2.06	20 52 18.1	13 23.3	9.994 766	8 880	10 25.8
	3	17 12 42.45	4 17.57	21 5 41.4	13 24.5	0.003 646	8 506	10 25.9
	4	17 17 0.02	4 31.55	21 19 5.9	13 16.2	0.012 152	8 137	10 26.4
	5	17 21 31.57	4 44.17	21 32 22.1	12 59.8	0.020 289	7 776	10 27.1
	6	17 26 15.74	4 55.57	−21 45 21.9	12 35.8	0.028 065	7 425	10 28.0
	7	17 31 11.31	5 5.88	21 57 57.7	12 5.4	0.035 490	7 083	10 29.0
	8	17 36 17.19	5 15.24	22 10 3.1	11 29.4	0.042 573	6 755	10 30.2
	9	17 41 32.43	5 23.75	22 21 32.5	10 48.0	0.049 328	6 439	10 31.6
	10	17 46 56.18	5 31.50	22 32 20.5	10 2.3	0.055 767	6 135	10 33.1
	11	17 52 27.68	5 38.56	22 42 22.8	9 12.4	0.061 902	5 841	10 34.8
	12	17 58 6.24	5 45.02	−22 51 35.2	8 19.0	0.067 743	5 560	10 36.5
	13	18 3 51.26	5 50.94	22 59 54.2	7 22.2	0.073 303	5 291	10 38.4
	14	18 9 42.20	5 56.36	23 7 16.4	6 22.7	0.078 594	5 032	10 40.3
	15	18 15 38.56	6 1.33	23 13 39.1	5 20.5	0.083 626	4 783	10 42.4
	16	18 21 39.89	6 5.90	23 18 59.6	4 16.0	0.088 409	4 544	10 44.5
	17	18 27 45.79	6 10.10	23 23 15.6	3 9.4	0.092 953	4 315	10 46.7
	18	18 33 55.89	6 13.98	−23 26 25.0	2 0.8	0.097 268	4 095	10 48.9
	19	18 40 9.87	6 17.54	23 28 25.8	0 50.5	0.101 363	3 881	10 51.3
	20	18 46 27.41	6 20.83	23 29 16.3	0 21.3	0.105 244	3 675	10 53.7
	21	18 52 48.24	6 23.86	23 28 55.0	1 34.6	0.108 919	3 478	10 56.1
	22	18 59 12.10	6 26.66	23 27 20.4	2 49.1	0.112 397	3 285	10 58.6
	23	19 5 38.76	6 29.23	23 24 31.3	4 5.1	0.115 682	3 099	11 1.1
	24	19 12 7.99	6 31.61	−23 20 26.2	5 22.0	0.118 781	2 918	11 3.7
	25	19 18 39.60	6 33.80	23 15 4.2	6 39.9	0.121 699	2 742	11 6.3
	26	19 25 13.40	6 35.80	23 8 24.3	7 58.9	0.124 441	2 571	11 8.9
	27	19 31 49.20	6 37.68	23 0 25.4	9 18.6	0.127 012	2 402	11 11.6
	28	19 38 26.88	6 39.39	22 51 6.8	10 39.2	0.129 414	2 237	11 14.3
	29	19 45 6.27	6 40.95	22 40 27.6	12 0.5	0.131 651	2 075	11 17.0
	30	19 51 47.22	6 42.41	−22 28 27.1	13 22.5	0.133 726	1 915	11 19.8
	31	19 58 29.63	6 43.76	22 15 4.6	14 45.3	0.135 641	1 757	11 22.5
Febr.	1	20 5 13.39	6 44.99	22 0 19.3	16 8.6	0.137 398	1 601	11 25.3
	2	20 11 58.38	6 46.13	21 44 10.7	17 32.4	0.138 999	1 443	11 28.2
	3	20 18 44.51	6 47.18	21 26 38.3	18 56.7	0.140 442	1 288	11 31.0
	4	20 25 31.69	6 48.17	21 7 41.6	20 21.7	0.141 730	1 132	11 33.9
	5	20 32 19.86	6 49.09	−20 47 19.9	21 46.9	0.142 862	972	11 36.7
	6	20 39 8.95	6 49.93	20 25 33.0	23 12.5	0.143 834	814	11 39.6
	7	20 45 58.88	6 50.73	20 2 20.5	24 38.5	0.144 648	653	11 42.5
	8	20 52 49.61	6 51.48	19 37 42.0	26 4.8	0.145 301	487	11 45.5
	9	20 59 41.09	6 52.18	19 11 37.2	27 31.4	0.145 788	317	11 48.4
	10	21 6 33.27		−18 44 5.8		0.146 105		11 51.3

Tag		0ʰ Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939		h m s	m s	° ′ ″	′ ″			h m
Febr.	10	21 6 33.27	6 52.84	−18 44 5.8	28 58.0	0.146 105	145	11 51.3
	11	21 13 26.11	6 53.46	18 15 7.8	30 24.8	0.146 250	34	11 54.3
	12	21 20 19.57	6 54.05	17 44 43.0	31 51.5	0.146 216	218	11 57.2
	13	21 27 13.62	6 54.60	17 12 51.5	33 18.3	0.145 998	410	12 0.2
	14	21 34 8.22	6 55.12	16 39 33.2	34 44.9	0.145 588	610	12 3.2
	15	21 41 3.34	6 55.60	16 4 48.3	36 11.0	0.144 978	819	12 6.2
	16	21 47 58.94	6 56.03	−15 28 37.3	37 36.8	0.144 159	1 037	12 9.2
	17	21 54 54.97	6 56.42	14 51 0.5	39 1.9	0.143 122	1 268	12 12.2
	18	22 1 51.39	6 56.74	14 11 58.6	40 26.1	0.141 854	1 511	12 15.2
	19	22 8 48.13	6 56.98	13 31 32.5	41 49.3	0.140 343	1 767	12 18.2
	20	22 15 45.11	6 57.12	12 49 43.2	43 11.0	0.138 576	2 039	12 21.2
	21	22 22 42.23	6 57.14	12 6 32.2	44 30.9	0.136 537	2 327	12 24.2
	22	22 29 39.37	6 56.99	−11 22 1.3	45 48.6	0.134 210	2 633	12 27.2
	23	22 36 36.36	6 56.65	10 36 12.7	47 3.6	0.131 577	2 960	12 30.2
	24	22 43 33.01	6 56.06	9 49 9.1	48 15.1	0.128 617	3 306	12 33.2
	25	22 50 29.07	6 55.17	9 0 54.0	49 22.8	0.125 311	3 673	12 36.2
	26	22 57 24.24	6 53.89	8 11 31.2	50 25.7	0.121 638	4 065	12 39.2
	27	23 4 18.13	6 52.16	7 21 5.5	51 22.8	0.117 573	4 482	12 42.1
	28	23 11 10.29	6 49.90	− 6 29 42.7	52 13.3	0.113 091	4 921	12 45.0
März	1	23 18 0.19	6 46.98	5 37 29.4	52 55.9	0.108 170	5 385	12 47.9
	2	23 24 47.17	6 43.31	4 44 33.5	53 29.6	0.102 785	5 874	12 50.7
	3	23 31 30.48	6 38.76	3 51 3.9	53 53.1	0.096 911	6 385	12 53.5
	4	23 38 9.24	6 33.19	2 57 10.8	54 4.9	0.090 526	6 917	12 56.1
	5	23 44 42.43	6 26.51	2 3 5.9	54 4.0	0.083 609	7 466	12 58.7
	6	23 51 8.94	6 18.53	− 1 9 1.9	53 48.7	0.076 143	8 030	13 1.1
	7	23 57 27.47	6 9.15	− 0 15 13.2	53 18.2	0.068 113	8 602	13 3.4
	8	0 3 36.62	5 58.29	+ 0 38 5.0	52 31.3	0.059 511	9 177	13 5.5
	9	0 9 34.91	5 45.82	1 30 36.3	51 27.0	0.050 334	9 748	13 7.5
	10	0 15 20.73	5 31.66	2 22 3.3	50 5.2	0.040 586	10 306	13 9.2
	11	0 20 52.39	5 15.80	3 12 8.5	48 25.2	0.030 280	10 843	13 10.7
	12	0 26 8.19	4 58.22	+ 4 0 33.7	46 27.1	0.019 437	11 353	13 11.8
	13	0 31 6.41	4 38.93	4 47 0.8	44 11.6	0.008 084	11 825	13 12.6
	14	0 35 45.34	4 18.01	5 31 12.4	41 38.6	9.996 259	12 251	13 13.1
	15	0 40 3.35	3 55.54	6 12 51.0	38 49.4	9.984 008	12 621	13 13.3
	16	0 43 58.89	3 31.65	6 51 40.4	35 44.9	9.971 387	12 931	13 13.1
	17	0 47 30.54	3 6.50	7 27 25.3	32 26.1	9.958 456	13 171	13 12.4
	18	0 50 37.04	2 40.28	+ 7 59 51.4	28 54.4	9.945 285	13 334	13 11.4
	19	0 53 17.32	2 13.19	8 28 45.8	25 10.9	9.931 951	13 416	13 9.8
	20	0 55 30.51	1 45.47	8 53 56.7	21 17.1	9.918 535	13 412	13 7.9
	21	0 57 15.98	1 17.40	9 15 13.8	17 14.4	9.905 123	13 314	13 5.4
	22	0 58 33.38	0 49.28	9 32 28.2	13 4.6	9.891 809	13 120	13 2.5
	23	0 59 22.66		+ 9 45 32.8		9.878 689		12 59.2

Tag		0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939		h m s	m s	° ′ ″	′ ″			h m
März	23	0 59 22.66	0 21.43	+9 45 32.8	8 49.6	9.878 689	12 826	12 59.2
	24	0 59 44.09	0 5.79	9 54 22.4	4 31.5	9.865 863	12 431	12 55.3
	25	0 59 38.30	0 32.00	9 58 53.9	0 12.8	9.853 432	11 931	12 51.1
	26	0 59 6.30	0 56.80	9 59 6.7	4 3.7	9.841 501	11 329	12 46.4
	27	0 58 9.50	1 19.81	9 55 3.0	8 14.3	9.830 172	10 627	12 41.3
	28	0 56 49.69	1 40.60	9 46 48.7	12 15.6	9.819 545	9 829	12 35.9
	29	0 55 9.09	1 58.82	+9 34 33.1	16 4.0	9.809 716	8 943	12 30.1
	30	0 53 10.27	2 14.14	9 18 29.1	19 35.3	9.800 773	7 978	12 24.1
	31	0 50 56.13	2 26.29	8 58 53.8	22 45.3	9.792 795	6 947	12 17.8
April	1	0 48 29.84	2 35.07	8 36 8.5	25 30.8	9.785 848	5 864	12 11.4
	2	0 45 54.77	2 40.41	8 10 37.7	27 48.8	9.779 984	4 748	12 4.8
	3	0 43 14.36	2 42.25	7 42 48.9	29 36.4	9.775 236	3 615	11 58.2
	4	0 40 32.11	2 40.72	+7 13 12.5	30 52.7	9.771 621	2 481	11 51.6
	5	0 37 51.39	2 36.00	6 42 19.8	31 37.0	9.769 140	1 366	11 45.1
	6	0 35 15.39	2 28.32	6 10 42.8	31 49.7	9.767 774	287	11 38.6
	7	0 32 47.07	2 18.02	5 38 53.1	31 32.5	9.767 487	744	11 32.3
	8	0 30 29.05	2 5.47	5 7 20.6	30 47.3	9.768 231	1 716	11 26.2
	9	0 28 23.58	1 51.01	4 36 33.3	29 37.3	9.769 947	2 617	11 20.3
	10	0 26 32.57	1 35.04	+4 6 56.0	28 5.2	9.772 564	3 442	11 14.6
	11	0 24 57.53	1 17.95	3 38 50.8	26 14.8	9.776 006	4 192	11 9.2
	12	0 23 39.58	1 0.06	3 12 36.0	24 9.4	9.780 198	4 861	11 4.2
	13	0 22 39.52	0 41.67	2 48 26.6	21 52.2	9.785 059	5 452	10 59.4
	14	0 21 57.85	0 23.09	2 26 34.4	19 26.2	9.790 511	5 967	10 54.9
	15	0 21 34.76	0 4.49	2 7 8.2	16 54.1	9.796 478	6 414	10 50.7
	16	0 21 30.27	0 13.89	+1 50 14.1	14 18.6	9.802 892	6 792	10 46.8
	17	0 21 44.16	0 31.92	1 35 55.5	11 41.2	9.809 684	7 111	10 43.3
	18	0 22 16.08	0 49.49	1 24 14.3	9 4.1	9.816 795	7 375	10 40.0
	19	0 23 5.57	1 6.50	1 15 10.2	6 28.4	9.824 170	7 589	10 37.0
	20	0 24 12.07	1 22.90	1 8 41.8	3 55.1	9.831 759	7 760	10 34.3
	21	0 25 34.97	1 38.66	1 4 46.7	1 25.1	9.839 519	7 891	10 31.9
	22	0 27 13.63	1 53.78	+1 3 21.6	1 1.0	9.847 410	7 990	10 29.7
	23	0 29 7.41	2 8.22	1 4 22.6	3 22.6	9.855 400	8 060	10 27.8
	24	0 31 15.63	2 22.02	1 7 45.2	5 39.8	9.863 460	8 104	10 26.1
	25	0 33 37.65	2 35.22	1 13 25.0	7 52.1	9.871 564	8 126	10 24.6
	26	0 36 12.87	2 47.82	1 21 17.1	9 59.6	9.879 690	8 130	10 23.3
	27	0 39 0.69	2 59.86	1 31 16.7	12 2.3	9.887 820	8 119	10 22.3
	28	0 42 0.55	3 11.38	+1 43 19.0	14 0.0	9.895 939	8 093	10 21.4
	29	0 45 11.93	3 22.43	1 57 19.0	15 53.2	9.904 032	8 056	10 20.7
	30	0 48 34.36	3 33.04	2 13 12.2	17 41.7	9.912 088	8 010	10 20.2
Mai	1	0 52 7.40	3 43.27	2 30 53.9	19 25.5	9.920 098	7 956	10 19.9
	2	0 55 50.67	3 53.14	2 50 19.4	21 5.0	9.928 054	7 893	10 19.8
	3	0 59 43.81		+3 11 24.4		9.935 947		10 19.8

Tag	0ʰ Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Mai 3	0 59 43.81	4 2.70	+ 3 11 24.4	22 40.3	9.935 947	7 826	10 19.8
4	1 3 46.51	4 12.00	3 34 4.7	24 11.5	9.943 773	7 754	10 19.9
5	1 7 58.51	4 21.07	3 58 16.2	25 38.4	9.951 527	7 676	10 20.3
6	1 12 19.58	4 29.95	4 23 54.6	27 1.6	9.959 203	7 593	10 20.7
7	1 16 49.53	4 38.69	4 50 56.2	28 20.8	9.966 796	7 508	10 21.4
8	1 21 28.22	4 47.33	5 19 17.0	29 36.4	9.974 304	7 418	10 22.1
9	1 26 15.55	4 55.88	+ 5 48 53.4	30 48.0	9.981 722	7 325	10 23.0
10	1 31 11.43	5 4.40	6 19 41.4	31 56.1	9.989 047	7 228	10 24.1
11	1 36 15.83	5 12.93	6 51 37.5	33 0.4	9.996 275	7 126	10 25.3
12	1 41 28.76	5 21.48	7 24 37.9	34 1.1	0.003 401	7 021	10 26.6
13	1 46 50.24	5 30.12	7 58 39.0	34 58.0	0.010 422	6 911	10 28.1
14	1 52 20.36	5 38.85	8 33 37.0	35 51.2	0.017 333	6 795	10 29.7
15	1 57 59.21	5 47.70	+ 9 9 28.2	36 40.4	0.024 128	6 673	10 31.5
16	2 3 46.91	5 56.72	9 46 8.6	37 25.6	0.030 801	6 545	10 33.4
17	2 9 43.63	6 5.92	10 23 34.2	38 6.5	0.037 346	6 408	10 35.5
18	2 15 49.55	6 15.33	11 1 40.7	38 43.0	0.043 754	6 264	10 37.7
19	2 22 4.88	6 24.96	11 40 23.7	39 14.7	0.050 018	6 109	10 40.1
20	2 28 29.84	6 34.84	12 19 38.4	39 41.3	0.056 127	5 943	10 42.7
21	2 35 4.68	6 44.96	+12 59 19.7	40 2.4	0.062 070	5 766	10 45.4
22	2 41 49.64	6 55.34	13 39 22.1	40 17.7	0.067 836	5 575	10 48.3
23	2 48 44.98	7 5.96	14 19 39.8	40 26.5	0.073 411	5 368	10 51.3
24	2 55 50.94	7 16.82	15 0 6.3	40 28.4	0.078 779	5 146	10 54.6
25	3 3 7.76	7 27.87	15 40 34.7	40 22.6	0.083 925	4 905	10 58.0
26	3 10 35.63	7 39.10	16 20 57.3	40 8.6	0.088 830	4 645	11 1.6
27	3 18 14.73	7 50.42	+17 1 5.9	39 45.5	0.093 475	4 364	11 5.4
28	3 26 5.15	8 1.77	17 40 51.4	39 12.9	0.097 839	4 062	11 9.4
29	3 34 6.92	8 13.06	18 20 4.3	38 29.7	0.101 901	3 736	11 13.6
30	3 42 19.98	8 24.17	18 58 34.0	37 35.7	0.105 637	3 389	11 18.0
31	3 50 44.15	8 34.97	19 36 9.7	36 30.0	0.109 026	3 017	11 22.5
Juni 1	3 59 19.12	8 45.31	20 12 39.7	35 12.3	0.112 043	2 623	11 27.3
2	4 8 4.43	8 55.04	+20 47 52.0	33 42.2	0.114 666	2 209	11 32.2
3	4 16 59.47	9 3.96	21 21 34.2	32 0.0	0.116 875	1 775	11 37.3
4	4 26 3.43	9 11.95	21 53 34.2	30 5.6	0.118 650	1 326	11 42.5
5	4 35 15.38	9 18.80	22 23 39.8	27 59.8	0.119 976	863	11 47.8
6	4 44 34.18	9 24.39	22 51 39.6	25 43.4	0.120 839	392	11 53.2
7	4 53 58.57	9 28.60	23 17 23.0	23 17.4	0.121 231	$\overline{83}$	11 58.8
8	5 3 27.17	9 31.33	+23 40 40.4	20 43.6	0.121 148	559	12 4.3
9	5 12 58.50	9 32.53	24 1 24.0	18 3.4	0.120 589	1 029	12 9.9
10	5 22 31.03	9 32.17	24 19 27.4	15 18.4	0.119 560	1 490	12 15.6
11	5 32 3.20	9 30.30	24 34 45.8	12 30.7	0.118 070	1 938	12 21.2
12	5 41 33.50	9 26.95	24 47 16.5	9 41.9	0.116 132	2 369	12 26.7
13	5 51 0.45		+24 56 58.4		0.113 763		12 32.2

Tag	0ʰ Welt-Zeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1939	h m s	m s	° ′ ″	′ ″			h m
Juni 13	5 51 0.45	9 22.23	+24 56 58.4	6 53.8	0.113 763	2 780	12 32.2
14	6 0 22.68	9 16.21	25 3 52.2	4 8.1	0.110 983	3 170	12 37.6
15	6 9 38.89	9 9.05	25 8 0.3	1 25.9	0.107 813	3 537	12 42.9
16	6 18 47.94	9 0.87	25 9 26.2	1 11.5	0.104 276	3 881	12 48.1
17	6 27 48.81	8 51.81	25 8 14.7	3 43.1	0.100 395	4 202	12 53.1
18	6 36 40.62	8 41.97	25 4 31.6	6 8.1	0.096 193	4 501	12 57.9
19	6 45 22.59	8 31.51	+24 58 23.5	8 26.2	0.091 692	4 776	13 2.6
20	6 53 54.10	8 20.54	24 49 57.3	10 36.7	0.086 916	5 031	13 7.1
21	7 2 14.64	8 9.14	24 39 20.6	12 39.7	0.081 885	5 266	13 11.4
22	7 10 23.78	7 57.42	24 26 40.9	14 34.9	0.076 619	5 483	13 15.5
23	7 18 21.20	7 45.46	24 12 6.0	16 22.3	0.071 136	5 683	13 19.4
24	7 26 6.66	7 33.32	23 55 43.7	18 1.8	0.065 453	5 868	13 23.2
25	7 33 39.98	7 21.05	+23 37 41.9	19 34.0	0.059 585	6 038	13 26.7
26	7 41 1.03	7 8.70	23 18 7.9	20 58.6	0.053 547	6 196	13 30.0
27	7 48 9.73	6 56.32	22 57 9.3	22 15.8	0.047 351	6 344	13 33.0
28	7 55 6.05	6 43.92	22 34 53.5	23 26.2	0.041 007	6 481	13 35.9
29	8 1 49.97	6 31.50	22 11 27.3	24 29.7	0.034 526	6 608	13 38.6
30	8 8 21.47	6 19.10	21 46 57.6	25 26.5	0.027 918	6 729	13 41.1
Juli 1	8 14 40.57	6 6.72	+21 21 31.1	26 16.8	0.021 189	6 841	13 43.4
2	8 20 47.29	5 54.35	20 55 14.3	27 0.9	0.014 348	6 948	13 45.4
3	8 26 41.64	5 41.98	20 28 13.4	27 38.7	0.007 400	7 048	13 47.3
4	8 32 23.62	5 29.61	20 0 34.7	28 10.8	0.000 352	7 144	13 48.9
5	8 37 53.23	5 17.21	19 32 23.9	28 36.9	9.993 208	7 234	13 50.3
6	8 43 10.44	5 4.80	19 3 47.0	28 57.1	9.985 974	7 320	13 51.5
7	8 48 15.24	4 52.32	+18 34 49.9	29 11.7	9.978 654	7 402	13 52.6
8	8 53 7.56	4 39.74	18 5 38.2	29 20.7	9.971 252	7 479	13 53.4
9	8 57 47.30	4 27.08	17 36 17.5	29 24.2	9.963 773	7 553	13 54.0
10	9 2 14.38	4 14.27	17 6 53.3	29 21.8	9.956 220	7 620	13 54.4
11	9 6 28.65	4 1.31	16 37 31.5	29 13.8	9.948 600	7 683	13 54.5
12	9 10 29.96	3 48.15	16 8 17.7	29 0.1	9.940 917	7 742	13 54.5
13	9 14 18.11	3 34.75	+15 39 17.6	28 40.6	9.933 175	7 792	13 54.2
14	9 17 52.86	3 21.10	15 10 37.0	28 15.2	9.925 383	7 837	13 53.7
15	9 21 13.96	3 7.16	14 42 21.8	27 43.6	9.917 546	7 874	13 53.0
16	9 24 21.12	2 52.88	14 14 38.2	27 5.8	9.909 672	7 900	13 52.0
17	9 27 14.00	2 38.24	13 47 32.4	26 21.7	9.901 772	7 914	13 50.8
18	9 29 52.24	2 23.21	13 21 10.7	25 30.7	9.893 858	7 917	13 49.4
19	9 32 15.45	2 7.76	+12 55 40.0	24 33.0	9.885 941	7 903	13 47.7
20	9 34 23.21	1 51.88	12 31 7.0	23 28.3	9.878 038	7 871	13 45.7
21	9 36 15.09	1 35.53	12 7 38.7	22 16.2	9.870 167	7 818	13 43.5
22	9 37 50.62	1 18.75	11 45 22.5	20 56.5	9.862 349	7 741	13 41.0
23	9 39 9.37	1 1.51	11 24 26.0	19 29.2	9.854 608	7 635	13 38.2
24	9 40 10.88		+11 4 56.8		9.846 973		13 35.1

Tag		0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939		h m s	m s	° ′ ″	′ ″			h m
Juli	24	9 40 10.88	0 43.84	+11 4 56.8	17 54.1	9.846 973	7 498	13 35.1
	25	9 40 54.72	0 25.79	10 47 2.7	16 11.1	9.839 475	7 325	13 31.8
	26	9 41 20.51	0 7.41	10 30 51.6	14 20.1	9.832 150	7 110	13 28.1
	27	9 41 27.92	0 11.22	10 16 31.5	12 21.5	9.825 040	6 849	13 24.1
	28	9 41 16.70	0 29.98	10 4 10.0	10 15.4	9.818 191	6 538	13 19.8
	29	9 40 46.72	0 48.73	9 53 54.6	8 2.1	9.811 653	6 170	13 15.2
	30	9 39 57.99	1 7.29	+ 9 45 52.5	5 42.6	9.805 483	5 742	13 10.3
	31	9 38 50.70	1 25.47	9 40 9.9	3 17.7	9.799 741	5 250	13 5.1
Aug.	1	9 37 25.23	1 42.99	9 36 52.2	0 48.3	9.794 491	4 688	12 59.6
	2	9 35 42.24	1 59.59	9 36 3.9	1 43.6	9.789 803	4 056	12 53.8
	3	9 33 42.65	2 14.98	9 37 47.5	4 16.6	9.785 747	3 353	12 47.7
	4	9 31 27.67	2 28.77	9 42 4.1	6 48.3	9.782 394	2 578	12 41.4
	5	9 28 58.90	2 40.64	+ 9 48 52.4	9 16.7	9.779 816	1 733	12 34.9
	6	9 26 18.26	2 50.23	9 58 9.1	11 39.3	9.778 083	826	12 28.3
	7	9 23 28.03	2 57.23	10 9 48.4	13 53.1	9.777 257	137	12 21.5
	8	9 20 30.80	3 1.31	10 23 41.5	15 56.0	9.777 394	1 147	12 14.6
	9	9 17 29.49	3 2.23	10 39 37.5	17 45.2	9.778 541	2 192	12 7.6
	10	9 14 27.26	2 59.81	10 57 22.7	19 18.7	9.780 733	3 256	12 0.7
	11	9 11 27.45	2 53.92	+11 16 41.4	20 34.7	9.783 989	4 328	11 53.8
	12	9 8 33.53	2 44.54	11 37 16.1	21 31.8	9.788 317	5 389	11 47.1
	13	9 5 48.99	2 31.76	11 58 47.9	22 8.8	9.793 706	6 422	11 40.5
	14	9 3 17.23	2 15.69	12 20 56.7	22 25.4	9.800 128	7 417	11 34.1
	15	9 1 1.54	1 56.55	12 43 22.1	22 21.9	9.807 545	8 355	11 28.2
	16	8 59 4.99	1 34.64	13 5 44.0	21 58.1	9.815 900	9 228	11 22.5
	17	8 57 30.35	1 10.29	+13 27 42.1	21 15.1	9.825 128	10 026	11 17.2
	18	8 56 20.06	0 43.84	13 48 57.2	20 13.7	9.835 154	10 737	11 12.3
	19	8 55 36.22	0 15.70	14 9 10.9	18 55.2	9.845 891	11 359	11 7.8
	20	8 55 20.52	0 13.77	14 28 6.1	17 20.2	9.857 250	11 888	11 3.8
	21	8 55 34.29	0 44.15	14 45 26.3	15 30.4	9.869 138	12 322	11 0.4
	22	8 56 18.44	1 15.08	15 0 56.7	13 26.6	9.881 460	12 660	10 57.4
	23	8 57 33.52	1 46.22	+15 14 23.3	11 10.2	9.894 120	12 904	10 55.0
	24	8 59 19.74	2 17.21	15 25 33.5	8 42.3	9.907 024	13 056	10 53.0
	25	9 1 36.95	2 47.72	15 34 15.8	6 3.9	9.920 080	13 118	10 51.6
	26	9 4 24.67	3 17.46	15 40 19.7	3 16.3	9.933 198	13 095	10 50.7
	27	9 7 42.13	3 46.13	15 43 36.0	0 20.8	9.946 293	12 990	10 50.2
	28	9 11 28.26	4 13.49	15 43 56.8	2 41.0	9.959 283	12 809	10 50.3
	29	9 15 41.75	4 39.29	+15 41 15.8	5 47.9	9.972 092	12 556	10 50.8
	30	9 20 21.04	5 3.30	15 35 27.9	8 57.9	9.984 648	12 239	10 51.7
	31	9 25 24.34	5 25.35	15 26 30.0	12 9.3	9.996 887	11 862	10 52.9
Sept.	1	9 30 49.69	5 45.29	15 14 20.7	15 19.9	0.008 749	11 434	10 54.6
	2	9 36 34.98	6 3.03	14 59 0.8	18 28.0	0.020 183	10 962	10 56.5
	3	9 42 38.01		+14 40 32.8		0.031 145		10 58.8

Tag	Scheinbare Rektaszension (0h Welt-Zeit)		Scheinbare Deklination (0h Welt-Zeit)		log Δ (0h Welt-Zeit)		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Sept. 3	9 42 38.01	6 18.51	+14 40 32.8	21 31.3	0.031 145	10 455	10 58.8
4	9 48 56.52	6 31.70	14 19 1.5	24 28.3	0.041 600	9 920	11 1.3
5	9 55 28.22	6 42.66	13 54 33.2	27 16.8	0.051 520	9 367	11 3.9
6	10 2 10.88	6 51.46	13 27 16.4	29 55.7	0.060 887	8 802	11 6.7
7	10 9 2.34	6 58.26	12 57 20.7	32 23.7	0.069 689	8 233	11 9.7
8	10 16 0.60	7 3.16	12 24 57.0	34 39.9	0.077 922	7 668	11 12.8
9	10 23 3.76	7 6.39	+11 50 17.1	36 43.9	0.085 590	7 111	11 16.0
10	10 30 10.15	7 8.12	11 13 33.2	38 35.2	0.092 701	6 568	11 19.2
11	10 37 18.27	7 8.57	10 34 58.0	40 14.2	0.099 269	6 044	11 22.4
12	10 44 26.84	7 7.90	9 54 43.8	41 41.2	0.105 313	5 539	11 25.6
13	10 51 34.74	7 6.32	9 13 2.6	42 56.3	0.110 852	5 057	11 28.8
14	10 58 41.06	7 3.99	8 30 6.3	44 0.5	0.115 909	4 599	11 31.9
15	11 5 45.05	7 1.09	+ 7 46 5.8	44 54.4	0.120 508	4 164	11 35.0
16	11 12 46.14	6 57.74	7 1 11.4	45 38.7	0.124 672	3 754	11 38.1
17	11 19 43.88	6 54.05	6 15 32.7	46 14.3	0.128 426	3 368	11 41.1
18	11 26 37.93	6 50.16	5 29 18.4	46 41.9	0.131 794	3 004	11 44.0
19	11 33 28.09	6 46.13	4 42 36.5	47 2.3	0.134 798	2 661	11 46.9
20	11 40 14.22	6 42.04	3 55 34.2	47 16.1	0.137 459	2 340	11 49.7
21	11 46 56.26	6 37.95	+ 3 8 18.1	47 23.9	0.139 799	2 036	11 52.4
22	11 53 34.21	6 33.93	2 20 54.2	47 26.7	0.141 835	1 751	11 55.1
23	12 0 8.14	6 29.98	1 33 27.5	47 24.4	0.143 586	1 482	11 57.7
24	12 6 38.12	6 26.16	+ 0 46 3.1	47 18.1	0.145 068	1 227	12 0.2
25	12 13 4.28	6 22.46	− 0 1 15.0	47 8.0	0.146 295	985	12 2.6
26	12 19 26.74	6 18.94	0 48 23.0	46 54.3	0.147 280	757	12 5.0
27	12 25 45.68	6 15.60	− 1 35 17.3	46 37.6	0.148 037	538	12 7.4
28	12 32 1.28	6 12.42	2 21 54.9	46 18.1	0.148 575	330	12 9.7
29	12 38 13.70	6 9.43	3 8 13.0	45 56.2	0.148 905	130	12 11.9
30	12 44 23.13	6 6.63	3 54 9.2	45 31.9	0.149 035	$\overline{62}$	12 14.1
Okt. 1	12 50 29.76	6 4.01	4 39 41.1	45 5.5	0.148 973	247	12 16.3
2	12 56 33.77	6 1.58	5 24 46.6	44 37.3	0.148 726	428	12 18.4
3	13 2 35.35	5 59.32	− 6 9 23.9	44 7.2	0.148 298	603	12 20.5
4	13 8 34.67	5 57.23	6 53 31.1	43 35.6	0.147 695	773	12 22.5
5	13 14 31.90	5 55.32	7 37 6.7	43 2.2	0.146 922	941	12 24.5
6	13 20 27.22	5 53.57	8 20 8.9	42 27.6	0.145 981	1 106	12 26.4
7	13 26 20.79	5 51.96	9 2 36.5	41 51.7	0.144 875	1 268	12 28.4
8	13 32 12.75	5 50.49	9 44 28.2	41 14.2	0.143 607	1 430	12 30.3
9	13 38 3.24	5 49.16	−10 25 42.4	40 35.4	0.142 177	1 591	12 32.2
10	13 43 52.40	5 47.95	11 6 17.8	39 55.5	0.140 586	1 751	12 34.1
11	13 49 40.35	5 46.84	11 46 13.3	39 14.4	0.138 835	1 913	12 35.9
12	13 55 27.19	5 45.82	12 25 27.7	38 31.9	0.136 922	2 074	12 37.7
13	14 1 13.01	5 44.89	13 3 59.6	37 48.2	0.134 848	2 237	12 39.6
14	14 6 57.90		−13 41 47.8		0.132 611		12 41.3

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Okt. 14	14 6 57.90	5 44.03	−13 41 47.8	37 3.3	0.132 611	2 403	12 41.3
15	14 12 41.93	5 43.22	14 18 51.1	36 17.2	0.130 208	2 571	12 43.1
16	14 18 25.15	5 42.43	14 55 8.3	35 29.9	0.127 637	2 741	12 44.9
17	14 24 7.58	5 41.67	15 30 38.2	34 41.1	0.124 896	2 915	12 46.7
18	14 29 49.25	5 40.91	16 5 19.3	33 51.1	0.121 981	3 092	12 48.4
19	14 35 30.16	5 40.13	16 39 10.4	32 59.8	0.118 889	3 274	12 50.1
20	14 41 10.29	5 39.31	−17 12 10.2	32 7.0	0.115 615	3 462	12 51.9
21	14 46 49.60	5 38.42	17 44 17.2	31 12.9	0.112 153	3 654	12 53.6
22	14 52 28.02	5 37.43	18 15 30.1	30 17.3	0.108 499	3 852	12 55.3
23	14 58 5.45	5 36.32	18 45 47.4	29 20.0	0.104 647	4 056	12 56.9
24	15 3 41.77	5 35.04	19 15 7.4	28 21.2	0.100 591	4 268	12 58.6
25	15 9 16.81	5 33.57	19 43 28.6	27 20.7	0.096 323	4 487	13 0.2
26	15 14 50.38	5 31.87	−20 10 49.3	26 18.7	0.091 836	4 714	13 1.8
27	15 20 22.25	5 29.86	20 37 8.0	25 14.6	0.087 122	4 950	13 3.4
28	15 25 52.11	5 27.53	21 2 22.6	24 8.7	0.082 172	5 195	13 4.9
29	15 31 19.64	5 24.79	21 26 31.3	23 0.8	0.076 977	5 449	13 6.4
30	15 36 44.43	5 21.60	21 49 32.1	21 50.9	0.071 528	5 713	13 7.9
31	15 42 6.03	5 17.86	22 11 23.0	20 38.9	0.065 815	5 989	13 9.3
Nov. 1	15 47 23.89	5 13.52	−22 32 1.9	19 24.5	0.059 826	6 275	13 10.6
2	15 52 37.41	5 8.45	22 51 26.4	18 7.8	0.053 551	6 571	13 11.8
3	15 57 45.86	5 2.55	23 9 34.2	16 48.6	0.046 980	6 879	13 12.9
4	16 2 48.41	4 55.73	23 26 22.8	15 26.6	0.040 101	7 198	13 14.0
5	16 7 44.14	4 47.85	23 41 49.4	14 2.0	0.032 903	7 529	13 14.9
6	16 12 31.99	4 38.73	23 55 51.4	12 34.4	0.025 374	7 868	13 15.7
7	16 17 10.72	4 28.23	−24 8 25.8	11 3.6	0.017 506	8 214	13 16.3
8	16 21 38.95	4 16.18	24 19 29.4	9 29.2	0.009 292	8 569	13 16.7
9	16 25 55.13	4 2.36	24 28 58.6	7 51.3	0.000 723	8 928	13 16.9
10	16 29 57.49	3 46.58	24 36 49.9	6 9.4	9.991 795	9 284	13 16.9
11	16 33 44.07	3 28.59	24 42 59.3	4 22.9	9.982 511	9 636	13 16.6
12	16 37 12.66	3 8.18	24 47 22.2	2 31.6	9.972 875	9 976	13 15.9
13	16 40 20.84	2 45.10	−24 49 53.8	0 35.0	9.962 899	10 293	13 14.9
14	16 43 5.94	2 19.14	24 50 28.8	1 27.5	9.952 606	10 578	13 13.5
15	16 45 25.08	1 50.13	24 49 1.3	3 36.8	9.942 028	10 816	13 11.6
16	16 47 15.21	1 17.95	24 45 24.5	5 53.2	9.931 212	10 989	13 9.2
17	16 48 33.16	0 42.56	24 39 31.3	8 17.5	9.920 223	11 075	13 6.3
18	16 49 15.72	0 4.10	24 31 13.8	10 50.1	9.909 148	11 049	13 2.7
19	16 49 19.82	0 37.12	−24 20 23.7	13 31.0	9.898 099	10 884	12 58.4
20	16 48 42.70	1 20.47	24 6 52.7	16 19.5	9.887 215	10 548	12 53.5
21	16 47 22.23	2 5.07	23 50 33.2	19 13.9	9.876 667	10 012	12 47.9
22	16 45 17.16	2 49.64	23 31 19.3	22 11.2	9.866 655	9 245	12 41.5
23	16 42 27.52	3 32.51	23 9 8.1	25 5.8	9.857 410	8 228	12 34.4
24	16 38 55.01		−22 44 2.3		9.849 182		12 26.6

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Nov. 24	16 38 55.01	4 11.76	−22 44 2.3	27 50.8	9.849 182	6 948	12 26.6
25	16 34 43.25	4 45.23	22 16 11.5	30 16.7	9.842 234	5 417	12 18.2
26	16 29 58.02	5 10.84	21 45 54.8	32 12.3	9.836 817	3 663	12 9.3
27	16 24 47.18	5 26.83	21 13 42.5	33 26.5	9.833 154	1 734	12 0.1
28	16 19 20.35	5 31.97	20 40 16.0	33 49.6	9.831 420	296	11 50.7
29	16 13 48.38	5 25.87	20 6 26.4	33 15.0	9.831 716	2 343	11 41.3
30	16 8 22.51	5 8.93	−19 33 11.4	31 41.0	9.834 059	4 320	11 32.1
Dez. 1	16 3 13.58	4 42.40	19 1 30.4	29 10.9	9.838 379	6 147	11 23.3
2	15 58 31.18	4 8.09	18 32 19.5	25 53.1	9.844 526	7 760	11 14.9
3	15 54 23.09	3 28.08	18 6 26.4	21 58.7	9.852 286	9 118	11 7.2
4	15 50 55.01	2 44.53	17 44 27.7	17 41.3	9.861 404	10 202	11 0.1
5	15 48 10.48	1 59.44	17 26 46.4	13 13.5	9.871 606	11 014	10 53.8
6	15 46 11.04	1 14.43	−17 13 32.9	8 46.8	9.882 620	11 573	10 48.2
7	15 44 56.61	0 30.76	17 4 46.1	4 30.4	9.894 193	11 905	10 43.4
8	15 44 25.85	0 10.68	17 0 15.7	0 30.9	9.906 098	12 043	10 39.3
9	15 44 36.53	0 49.30	16 59 44.8	3 7.1	9.918 141	12 024	10 35.8
10	15 45 25.83	1 24.85	17 2 51.9	6 21.2	9.930 165	11 877	10 33.0
11	15 46 50.68	1 57.24	17 9 13.1	9 10.9	9.942 042	11 633	10 30.7
12	15 48 47.92	2 26.49	−17 18 24.0	11 36.6	9.953 675	11 317	10 28.9
13	15 51 14.41	2 52.81	17 30 0.6	13 38.6	9.964 992	10 951	10 27.6
14	15 54 7.22	3 16.40	17 43 39.2	15 19.2	9.975 943	10 549	10 26.7
15	15 57 23.62	3 37.48	17 58 58.4	16 39.9	9.986 492	10 127	10 26.2
16	16 1 1.10	3 56.29	18 15 38.3	17 42.6	9.996 619	9 697	10 26.0
17	16 4 57.39	4 13.10	18 33 20.9	18 29.2	0.006 316	9 263	10 26.2
18	16 9 10.49	4 28.12	−18 51 50.1	19 1.4	0.015 579	8 833	10 26.6
19	16 13 38.61	4 41.56	19 10 51.5	19 20.6	0.024 412	8 412	10 27.2
20	16 18 20.17	4 53.62	19 30 12.1	19 28.8	0.032 824	8 002	10 28.0
21	16 23 13.79	5 4.45	19 49 40.9	19 26.8	0.040 826	7 605	10 29.0
22	16 28 18.24	5 14.22	20 9 7.7	19 16.1	0.048 431	7 221	10 30.2
23	16 33 32.46	5 23.05	20 28 23.8	18 57.6	0.055 652	6 854	10 31.6
24	16 38 55.51	5 31.07	−20 47 21.4	18 32.2	0.062 506	6 501	10 33.1
25	16 44 26.58	5 38.37	21 5 53.6	18 0.6	0.069 007	6 163	10 34.8
26	16 50 4.95	5 45.04	21 23 54.2	17 23.8	0.075 170	5 840	10 36.5
27	16 55 49.99	5 51.15	21 41 18.0	16 42.2	0.081 010	5 532	10 38.3
28	17 1 41.14	5 56.77	21 58 0.2	15 56.2	0.086 542	5 236	10 40.3
29	17 7 37.91	6 1.96	22 13 56.4	15 6.4	0.091 778	4 954	10 42.4
30	17 13 39.87	6 6.76	−22 29 2.8	14 13.1	0.096 732	4 683	10 44.5
31	17 19 46.63	6 11.20	22 43 15.9	13 16.8	0.101 415	4 425	10 46.7
32	17 25 57.83		−22 56 32.7		0.105 840		10 49.0

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Jan. 0	15 41 15.12	2 38.00	−15 30 31.7	6 18.6	9.648 3318	6 7971	9 5.7
1	15 43 53.12	2 42.90	15 36 50.3	6 43.0	9.655 1289	6 7418	9 4.4
2	15 46 36.02	2 47.65	15 43 33.3	7 5.4	9.661 8707	6 6846	9 3.2
3	15 49 23.67	2 52.27	15 50 38.7	7 25.7	9.668 5553	6 6259	9 2.1
4	15 52 15.94	2 56.76	15 58 4.4	7 44.2	9.675 1812	6 5658	9 1.1
5	15 55 12.70	3 1.12	16 5 48.6	8 0.6	9.681 7470	6 5044	9 0.1
6	15 58 13.82	3 5.34	−16 13 49.2	8 15.2	9.688 2514	6 4419	8 59.2
7	16 1 19.16	3 9.46	16 22 4.4	8 27.8	9.694 6933	6 3784	8 58.4
8	16 4 28.62	3 13.45	16 30 32.2	8 38.6	9.701 0717	6 3141	8 57.6
9	16 7 42.07	3 17.32	16 39 10.8	8 47.6	9.707 3858	6 2490	8 56.9
10	16 10 59.39	3 21.08	16 47 58.4	8 54.8	9.713 6348	6 1835	8 56.3
11	16 14 20.47	3 24.73	16 56 53.2	9 0.4	9.719 8183	6 1177	8 55.7
12	16 17 45.20	3 28.24	−17 5 53.6	9 4.3	9.725 9360	6 0516	8 55.2
13	16 21 13.44	3 31.69	17 14 57.9	9 6.6	9.731 9876	5 9854	8 54.8
14	16 24 45.13	3 35.00	17 24 4.5	9 7.3	9.737 9730	5 9195	8 54.4
15	16 28 20.13	3 38.22	17 33 11.8	9 6.5	9.743 8925	5 8539	8 54.0
16	16 31 58.35	3 41.33	17 42 18.3	9 4.1	9.749 7464	5 7886	8 53.7
17	16 35 39.68	3 44.36	17 51 22.4	9 0.4	9.755 5350	5 7239	8 53.5
18	16 39 24.04	3 47.28	−18 0 22.8	8 55.2	9.761 2589	5 6597	8 53.3
19	16 43 11.32	3 50.13	18 9 18.0	8 48.7	9.766 9186	5 5961	8 53.2
20	16 47 1.45	3 52.91	18 18 6.7	8 40.9	9.772 5147	5 5332	8 53.1
21	16 50 54.36	3 55.57	18 26 47.6	8 31.8	9.778 0479	5 4710	8 53.1
22	16 54 49.93	3 58.17	18 35 19.4	8 21.5	9.783 5189	5 4096	8 53.1
23	16 58 48.10	4 0.69	18 43 40.9	8 10.1	9.788 9285	5 3490	8 53.1
24	17 2 48.79	4 3.14	−18 51 51.0	7 57.3	9.794 2775	5 2892	8 53.2
25	17 6 51.93	4 5.51	18 59 48.3	7 43.6	9.799 5667	5 2302	8 53.3
26	17 10 57.44	4 7.81	19 7 31.9	7 28.6	9.804 7969	5 1721	8 53.5
27	17 15 5.25	4 10.04	19 15 0.5	7 12.7	9.809 9690	5 1149	8 53.7
28	17 19 15.29	4 12.21	19 22 13.2	6 55.6	9.815 0839	5 0584	8 53.9
29	17 23 27.50	4 14.30	19 29 8.8	6 37.6	9.820 1423	5 0029	8 54.2
30	17 27 41.80	4 16.34	−19 35 46.4	6 18.7	9.825 1452	4 9481	8 54.5
31	17 31 58.14	4 18.32	19 42 5.1	5 58.7	9.830 0933	4 8941	8 54.8
Febr. 1	17 36 16.46	4 20.23	19 48 3.8	5 37.9	9.834 9874	4 8410	8 55.2
2	17 40 36.69	4 22.09	19 53 41.7	5 16.3	9.839 8284	4 7886	8 55.6
3	17 44 58.78	4 23.87	19 58 58.0	4 53.7	9.844 6170	4 7366	8 56.0
4	17 49 22.65	4 25.61	20 3 51.7	4 30.5	9.849 3536	4 6852	8 56.5
5	17 53 48.26	4 27.27	−20 8 22.2	4 6.3	9.854 0388	4 6344	8 57.0
6	17 58 15.53	4 28.88	20 12 28.5	3 41.5	9.858 6732	4 5840	8 57.5
7	18 2 44.41	4 30.41	20 16 10.0	3 15.9	9.863 2572	4 5341	8 58.1
8	18 7 14.82	4 31.87	20 19 25.9	2 49.8	9.867 7913	4 4848	8 58.7
9	18 11 46.69	4 33.28	20 22 15.7	2 22.9	9.872 2761	4 4360	8 59.3
10	18 16 19.97		−20 24 38.6		9.876 7121		8 59.9

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Febr. 10	18 16 19.97	4 34.60	−20 24 38.6	1 55.4	9.876 7121	4 3876	8 59.9
11	18 20 54.57	4 35.85	20 26 34.0	1 27.5	9.881 0997	4 3398	9 0.5
12	18 25 30.42	4 37.04	20 28 1.5	0 59.0	9.885 4395	4 2928	9 1.2
13	18 30 7.46	4 38.15	20 29 0.5	0 30.0	9.889 7323	4 2463	9 1.9
14	18 34 45.61	4 39.19	20 29 30.5	0 0.5	9.893 9786	4 2004	9 2.6
15	18 39 24.80	4 40.16	20 29 31.0	0 29.2	9.898 1790	4 1552	9 3.3
16	18 44 4.96	4 41.07	−20 29 1.8	0 59.5	9.902 3342	4 1106	9 4.0
17	18 48 46.03	4 41.90	20 28 2.3	1 30.1	9.906 4448	4 0669	9 4.8
18	18 53 27.93	4 42.67	20 26 32.2	2 1.0	9.910 5117	4 0237	9 5.5
19	18 58 10.60	4 43.38	20 24 31.2	2 32.1	9.914 5354	3 9813	9 6.3
20	19 2 53.98	4 44.01	20 21 59.1	3 3.6	9.918 5167	3 9394	9 7.1
21	19 7 37.99	4 44.58	20 18 55.5	3 35.1	9.922 4561	3 8984	9 7.9
22	19 12 22.57	4 45.10	−20 15 20.4	4 7.0	9.926 3545	3 8580	9 8.7
23	19 17 7.67	4 45.55	20 11 13.4	4 38.9	9.930 2125	3 8182	9 9.5
24	19 21 53.22	4 45.93	20 6 34.5	5 10.9	9.934 0307	3 7793	9 10.3
25	19 26 39.15	4 46.27	20 1 23.6	5 43.0	9.937 8100	3 7409	9 11.1
26	19 31 25.42	4 46.55	19 55 40.6	6 15.3	9.941 5509	3 7033	9 12.0
27	19 36 11.97	4 46.78	19 49 25.3	6 47.5	9.945 2542	3 6662	9 12.8
28	19 40 58.75	4 46.95	−19 42 37.8	7 19.8	9.948 9204	3 6298	9 13.6
März 1	19 45 45.70	4 47.08	19 35 18.0	7 52.0	9.952 5502	3 5939	9 14.5
2	19 50 32.78	4 47.17	19 27 26.0	8 24.3	9.956 1441	3 5586	9 15.3
3	19 55 19.95	4 47.20	19 19 1.7	8 56.3	9.959 7027	3 5237	9 16.2
4	20 0 7.15	4 47.20	19 10 5.4	9 28.4	9.963 2264	3 4893	9 17.0
5	20 4 54.35	4 47.15	19 0 37.0	10 0.2	9.966 7157	3 4552	9 17.9
6	20 9 41.50	4 47.05	−18 50 36.8	10 32.0	9.970 1709	3 4215	9 18.7
7	20 14 28.55	4 46.93	18 40 4.8	11 3.5	9.973 5924	3 3881	9 19.5
8	20 19 15.48	4 46.75	18 29 1.3	11 34.8	9.976 9805	3 3550	9 20.4
9	20 24 2.23	4 46.54	18 17 26.5	12 5.9	9.980 3355	3 3221	9 21.2
10	20 28 48.77	4 46.30	18 5 20.6	12 36.7	9.983 6576	3 2895	9 22.1
11	20 33 35.07	4 46.01	17 52 43.9	13 7.1	9.986 9471	3 2573	9 22.9
12	20 38 21.08	4 45.68	−17 39 36.8	13 37.3	9.990 2044	3 2253	9 23.7
13	20 43 6.76	4 45.33	17 25 59.5	14 7.1	9.993 4297	3 1937	9 24.5
14	20 47 52.09	4 44.93	17 11 52.4	14 36.5	9.996 6234	3 1623	9 25.3
15	20 52 37.02	4 44.51	16 57 15.9	15 5.6	9.999 7857	3 1314	9 26.1
16	20 57 21.53	4 44.06	16 42 10.3	15 34.3	0.002 9171	3 1008	9 26.9
17	21 2 5.59	4 43.58	16 26 36.0	16 2.4	0.006 0179	3 0706	9 27.7
18	21 6 49.17	4 43.08	−16 10 33.6	16 30.2	0.009 0885	3 0407	9 28.5
19	21 11 32.25	4 42.55	15 54 3.4	16 57.6	0.012 1292	3 0113	9 29.3
20	21 16 14.80	4 42.01	15 37 5.8	17 24.3	0.015 1405	2 9822	9 30.0
21	21 20 56.81	4 41.44	15 19 41.5	17 50.7	0.018 1227	2 9535	9 30.8
22	21 25 38.25	4 40.87	15 1 50.8	18 16.5	0.021 0762	2 9251	9 31.5
23	21 30 19.12		−14 43 34.3		0.024 0013		9 32.3

Tag		0ʰ Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939		h m s	m s	° ′ ″	′ ″			h m
März	23	21 30 19.12	4 40.28	−14 43 34.3	18 41.9	0.024 0013	2 8972	9 32.3
	24	21 34 59.40	4 39.67	14 24 52.4	19 6.7	0.026 8985	2 8697	9 33.0
	25	21 39 39.07	4 39.06	14 5 45.7	19 31.0	0.029 7682	2 8427	9 33.7
	26	21 44 18.13	4 38.45	13 46 14.7	19 54.7	0.032 6109	2 8160	9 34.4
	27	21 48 56.58	4 37.83	13 26 20.0	20 18.0	0.035 4269	2 7898	9 35.1
	28	21 53 34.41	4 37.21	13 6 2.0	20 40.6	0.038 2167	2 7639	9 35.8
	29	21 58 11.62	4 36.59	−12 45 21.4	21 2.7	0.040 9806	2 7385	9 36.5
	30	22 2 48.21	4 35.98	12 24 18.7	21 24.3	0.043 7191	2 7134	9 37.1
	31	22 7 24.19	4 35.38	12 2 54.4	21 45.3	0.046 4325	2 6885	9 37.8
April	1	22 11 59.57	4 34.78	11 41 9.1	22 5.7	0.049 1210	2 6639	9 38.4
	2	22 16 34.35	4 34.20	11 19 3.4	22 25.6	0.051 7849	2 6396	9 39.1
	3	22 21 8.55	4 33.62	10 56 37.8	22 44.9	0.054 4245	2 6155	9 39.7
	4	22 25 42.17	4 33.07	−10 33 52.9	23 3.6	0.057 0400	2 5914	9 40.3
	5	22 30 15.24	4 32.52	10 10 49.3	23 21.7	0.059 6314	2 5676	9 40.9
	6	22 34 47.76	4 31.99	9 47 27.6	23 39.2	0.062 1990	2 5439	9 41.5
	7	22 39 19.75	4 31.48	9 23 48.4	23 56.0	0.064 7429	2 5204	9 42.1
	8	22 43 51.23	4 30.97	8 59 52.4	24 12.3	0.067 2633	2 4969	9 42.7
	9	22 48 22.20	4 30.49	8 35 40.1	24 27.9	0.069 7602	2 4735	9 43.2
	10	22 52 52.69	4 30.03	− 8 11 12.2	24 42.9	0.072 2337	2 4503	9 43.8
	11	22 57 22.72	4 29.57	7 46 29.3	24 57.1	0.074 6840	2 4272	9 44.4
	12	23 1 52.29	4 29.15	7 21 32.2	25 10.9	0.077 1112	2 4041	9 44.9
	13	23 6 21.44	4 28.73	6 56 21.3	25 23.9	0.079 5153	2 3813	9 45.4
	14	23 10 50.17	4 28.34	6 30 57.4	25 36.2	0.081 8966	2 3585	9 46.0
	15	23 15 18.51	4 27.97	6 5 21.2	25 48.0	0.084 2551	2 3359	9 46.5
	16	23 19 46.48	4 27.62	− 5 39 33.2	25 59.0	0.086 5910	2 3135	9 47.0
	17	23 24 14.10	4 27.30	5 13 34.2	26 9.5	0.088 9045	2 2914	9 47.5
	18	23 28 41.40	4 26.99	4 47 24.7	26 19.2	0.091 1959	2 2694	9 48.1
	19	23 33 8.39	4 26.73	4 21 5.5	26 28.3	0.093 4653	2 2477	9 48.6
	20	23 37 35.12	4 26.47	3 54 37.2	26 36.8	0.095 7130	2 2262	9 49.1
	21	23 42 1.59	4 26.25	3 28 0.4	26 44.6	0.097 9392	2 2048	9 49.6
	22	23 46 27.84	4 26.05	− 3 1 15.8	26 51.7	0.100 1440	2 1836	9 50.0
	23	23 50 53.89	4 25.88	2 34 24.1	26 58.1	0.102 3276	2 1626	9 50.5
	24	23 55 19.77	4 25.73	2 7 26.0	27 4.0	0.104 4902	2 1420	9 51.0
	25	23 59 45.50	4 25.63	1 40 22.0	27 9.2	0.106 6322	2 1215	9 51.5
	26	0 4 11.13	4 25.55	1 13 12.8	27 13.7	0.108 7537	2 1014	9 52.0
	27	0 8 36.68	4 25.50	0 45 59.1	27 17.6	0.110 8551	2 0815	9 52.5
	28	0 13 2.18	4 25.51	− 0 18 41.5	27 20.8	0.112 9366	2 0617	9 53.0
	29	0 17 27.69	4 25.53	+ 0 8 39.3	27 23.5	0.114 9983	2 0421	9 53.5
	30	0 21 53.22	4 25.59	0 36 2.8	27 25.5	0.117 0404	2 0228	9 53.9
Mai	1	0 26 18.81	4 25.69	1 3 28.3	27 26.9	0.119 0632	2 0035	9 54.4
	2	0 30 44.50	4 25.83	1 30 55.2	27 27.5	0.121 0667	1 9844	9 54.9
	3	0 35 10.33		+ 1 58 22.7		0.123 0511		9 55.4

Tag	0ʰ Welt-Zeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1939	h m s	m s	° ′ ″	′ ″			h m
Mai 3	0 35 10.33	4 26.00	+ 1 58 22.7	27 27.6	0.123 0511	1 9652	9 55.4
4	0 39 36.33	4 26.21	2 25 50.3	27 27.0	0.125 0163	1 9462	9 55.9
5	0 44 2.54	4 26.46	2 53 17.3	27 25.7	0.126 9625	1 9272	9 56.4
6	0 48 29.00	4 26.74	3 20 43.0	27 23.7	0.128 8897	1 9082	9 56.9
7	0 52 55.74	4 27.05	3 48 6.7	27 21.2	0.130 7979	1 8892	9 57.4
8	0 57 22.79	4 27.40	4 15 27.9	27 17.9	0.132 6871	1 8702	9 57.9
9	1 1 50.19	4 27.77	+ 4 42 45.8	27 14.0	0.134 5573	1 8512	9 58.4
10	1 6 17.96	4 28.20	5 9 59.8	27 9.3	0.136 4085	1 8322	9 58.9
11	1 10 46.16	4 28.64	5 37 9.1	27 4.0	0.138 2407	1 8132	9 59.5
12	1 15 14.80	4 29.12	6 4 13.1	26 58.0	0.140 0539	1 7945	10 0.0
13	1 19 43.92	4 29.64	6 31 11.1	26 51.4	0.141 8484	1 7756	10 0.5
14	1 24 13.56	4 30.18	6 58 2.5	26 44.0	0.143 6240	1 7568	10 1.1
15	1 28 43.74	4 30.76	+ 7 24 46.5	26 35.9	0.145 3808	1 7380	10 1.7
16	1 33 14.50	4 31.36	7 51 22.4	26 27.2	0.147 1188	1 7193	10 2.3
17	1 37 45.86	4 31.99	8 17 49.6	26 17.7	0.148 8381	1 7007	10 2.8
18	1 42 17.85	4 32.65	8 44 7.3	26 7.6	0.150 5388	1 6821	10 3.4
19	1 46 50.50	4 33.34	9 10 14.9	25 56.8	0.152 2209	1 6637	10 4.0
20	1 51 23.84	4 34.06	9 36 11.7	25 45.2	0.153 8846	1 6454	10 4.6
21	1 55 57.90	4 34.80	+10 1 56.9	25 33.0	0.155 5300	1 6272	10 5.3
22	2 0 32.70	4 35.57	10 27 29.9	25 20.0	0.157 1572	1 6091	10 5.9
23	2 5 8.27	4 36.37	10 52 49.9	25 6.4	0.158 7663	1 5912	10 6.6
24	2 9 44.64	4 37.20	11 17 56.3	24 52.1	0.160 3575	1 5736	10 7.2
25	2 14 21.84	4 38.05	11 42 48.4	24 37.1	0.161 9311	1 5560	10 7.9
26	2 18 59.89	4 38.93	12 7 25.5	24 21.4	0.163 4871	1 5385	10 8.6
27	2 23 38.82	4 39.83	+12 31 46.9	24 5.0	0.165 0256	1 5213	10 9.3
28	2 28 18.65	4 40.76	12 55 51.9	23 47.9	0.166 5469	1 5041	10 10.1
29	2 32 59.41	4 41.71	13 19 39.8	23 30.0	0.168 0510	1 4871	10 10.8
30	2 37 41.12	4 42.69	13 43 9.8	23 11.6	0.169 5381	1 4700	10 11.6
31	2 42 23.81	4 43.69	14 6 21.4	22 52.4	0.171 0081	1 4531	10 12.4
Juni 1	2 47 7.50	4 44.72	14 29 13.8	22 32.5	0.172 4612	1 4362	10 13.2
2	2 51 52.22	4 45.75	+14 51 46.3	22 12.0	0.173 8974	1 4192	10 14.0
3	2 56 37.97	4 46.81	15 13 58.3	21 50.7	0.175 3166	1 4024	10 14.8
4	3 1 24.78	4 47.88	15 35 49.0	21 28.6	0.176 7190	1 3854	10 15.6
5	3 6 12.66	4 48.97	15 57 17.6	21 6.0	0.178 1044	1 3685	10 16.5
6	3 11 1.63	4 50.07	16 18 23.6	20 42.6	0.179 4729	1 3516	10 17.4
7	3 15 51.70	4 51.18	16 39 6.2	20 18.6	0.180 8245	1 3345	10 18.3
8	3 20 42.88	4 52.29	+16 59 24.8	19 53.7	0.182 1590	1 3176	10 19.2
9	3 25 35.17	4 53.40	17 19 18.5	19 28.3	0.183 4766	1 3006	10 20.1
10	3 30 28.57	4 54.53	17 38 46.8	19 2.1	0.184 7772	1 2835	10 21.1
11	3 35 23.10	4 55.66	17 57 48.9	18 35.3	0.186 0607	1 2665	10 22.1
12	3 40 18.76	4 56.77	18 16 24.2	18 7.8	0.187 3272	1 2495	10 23.1
13	3 45 15.53		+18 34 32.0		0.188 5767		10 24.1

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Juni 13	3 45 15.53	4 57.90	+18 34 32.0	17 39.7	0.188 5767	1 2324	10 24.1
14	3 50 13.43	4 59.00	18 52 11.7	17 10.8	0.189 8091	1 2153	10 25.1
15	3 55 12.43	5 0.11	19 9 22.5	16 41.3	0.191 0244	1 1983	10 26.1
16	4 0 12.54	5 1.20	19 26 3.8	16 11.1	0.192 2227	1 1813	10 27.2
17	4 5 13.74	5 2.27	19 42 14.9	15 40.4	0.193 4040	1 1643	10 28.3
18	4 10 16.01	5 3.33	19 57 55.3	15 9.0	0.194 5683	1 1473	10 29.4
19	4 15 19.34	5 4.36	+20 13 4.3	14 37.0	0.195 7156	1 1304	10 30.5
20	4 20 23.70	5 5.39	20 27 41.3	14 4.3	0.196 8460	1 1137	10 31.7
21	4 25 29.09	5 6.39	20 41 45.6	13 31.1	0.197 9597	1 0970	10 32.8
22	4 30 35.48	5 7.36	20 55 16.7	12 57.4	0.199 0567	1 0805	10 34.0
23	4 35 42.84	5 8.31	21 8 14.1	12 23.0	0.200 1372	1 0641	10 35.2
24	4 40 51.15	5 9.23	21 20 37.1	11 48.2	0.201 2013	1 0479	10 36.4
25	4 46 0.38	5 10.14	+21 32 25.3	11 12.9	0.202 2492	1 0319	10 37.6
26	4 51 10.52	5 11.00	21 43 38.2	10 37.0	0.203 2811	1 0159	10 38.8
27	4 56 21.52	5 11.83	21 54 15.2	10 0.6	0.204 2970	1 0000	10 40.1
28	5 1 33.35	5 12.64	22 4 15.8	9 23.8	0.205 2970	9841	10 41.3
29	5 6 45.99	5 13.41	22 13 39.6	8 46.6	0.206 2811	9682	10 42.6
30	5 11 59.40	5 14.13	22 22 26.2	8 8.9	0.207 2493	9523	10 43.9
Juli 1	5 17 13.53	5 14.83	+22 30 35.1	7 30.8	0.208 2016	9364	10 45.2
2	5 22 28.36	5 15.48	22 38 5.9	6 52.3	0.209 1380	9207	10 46.5
3	5 27 43.84	5 16.09	22 44 58.2	6 13.5	0.210 0587	9049	10 47.8
4	5 32 59.93	5 16.65	22 51 11.7	5 34.3	0.210 9636	8892	10 49.2
5	5 38 16.58	5 17.17	22 56 46.0	4 54.9	0.211 8528	8734	10 50.5
6	5 43 33.75	5 17.64	23 1 40.9	4 15.1	0.212 7262	8576	10 51.9
7	5 48 51.39	5 18.06	+23 5 56.0	3 35.2	0.213 5838	8417	10 53.2
8	5 54 9.45	5 18.42	23 9 31.2	2 54.9	0.214 4255	8257	10 54.6
9	5 59 27.87	5 18.75	23 12 26.1	2 14.5	0.215 2512	8098	10 56.0
10	6 4 46.62	5 19.00	23 14 40.6	1 34.0	0.216 0610	7939	10 57.3
11	6 10 5.62	5 19.22	23 16 14.6	0 53.2	0.216 8549	7780	10 58.7
12	6 15 24.84	5 19.37	23 17 7.8	0 12.4	0.217 6329	7619	11 0.1
13	6 20 44.21	5 19.46	+23 17 20.2	0 28.5	0.218 3948	7460	11 1.5
14	6 26 3.67	5 19.51	23 16 51.7	1 9.5	0.219 1408	7300	11 2.9
15	6 31 23.18	5 19.49	23 15 42.2	1 50.4	0.219 8708	7139	11 4.2
16	6 36 42.67	5 19.42	23 13 51.8	2 31.4	0.220 5847	6979	11 5.6
17	6 42 2.09	5 19.28	23 11 20.4	3 12.3	0.221 2826	6819	11 7.0
18	6 47 21.37	5 19.10	23 8 8.1	3 53.2	0.221 9645	6662	11 8.4
19	6 52 40.47	5 18.85	+23 4 14.9	4 33.9	0.222 6307	6503	11 9.8
20	6 57 59.32	5 18.55	22 59 41.0	5 14.6	0.223 2810	6346	11 11.1
21	7 3 17.87	5 18.19	22 54 26.4	5 55.0	0.223 9156	6191	11 12.5
22	7 8 36.06	5 17.79	22 48 31.4	6 35.2	0.224 5347	6037	11 13.8
23	7 13 53.85	5 17.34	22 41 56.2	7 15.3	0.225 1384	5883	11 15.2
24	7 19 11.19		+22 34 40.9		0.225 7267		11 16.5

Tag		0ʰ Welt-Zeit: Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	log Δ	Diff.	Obere Kulmination in Greenwich
1939		h m s	m s	° ′ ″	′ ″			h m
Juli	24	7 19 11.19	5 16.84	+22 34 40.9	7 55.2	0.225 7267	5731	11 16.5
	25	7 24 28.03	5 16.29	22 26 45.7	8 34.7	0.226 2998	5580	11 17.9
	26	7 29 44.32	5 15.70	22 18 11.0	9 14.0	0.226 8578	5430	11 19.2
	27	7 35 0.02	5 15.08	22 8 57.0	9 53.0	0.227 4008	5281	11 20.5
	28	7 40 15.10	5 14.40	21 59 4.0	10 31.7	0.227 9289	5133	11 21.8
	29	7 45 29.50	5 13.69	21 48 32.3	11 9.9	0.228 4422	4986	11 23.1
	30	7 50 43.19	5 12.95	+21 37 22.4	11 47.8	0.228 9408	4838	11 24.4
	31	7 55 56.14	5 12.18	21 25 34.6	12 25.3	0.229 4246	4689	11 25.7
Aug.	1	8 1 8.32	5 11.36	21 13 9.3	13 2.3	0.229 8935	4543	11 26.9
	2	8 6 19.68	5 10.52	21 0 7.0	13 39.0	0.230 3478	4395	11 28.2
	3	8 11 30.20	5 9.65	20 46 28.0	14 15.1	0.230 7873	4249	11 29.4
	4	8 16 39.85	5 8.75	20 32 12.9	14 50.7	0.231 2122	4103	11 30.6
	5	8 21 48.60	5 7.84	+20 17 22.2	15 25.9	0.231 6225	3957	11 31.8
	6	8 26 56.44	5 6.90	20 1 56.3	16 0.5	0.232 0182	3810	11 33.0
	7	8 32 3.34	5 5.94	19 45 55.8	16 34.6	0.232 3992	3663	11 34.1
	8	8 37 9.28	5 4.96	19 29 21.2	17 8.1	0.232 7655	3517	11 35.3
	9	8 42 14.24	5 3.96	19 12 13.1	17 41.0	0.233 1172	3369	11 36.4
	10	8 47 18.20	5 2.95	18 54 32.1	18 13.4	0.233 4541	3222	11 37.5
	11	8 52 21.15	5 1.94	+18 36 18.7	18 45.1	0.233 7763	3074	11 38.6
	12	8 57 23.09	5 0.90	18 17 33.6	19 16.1	0.234 0837	2926	11 39.7
	13	9 2 23.99	4 59.87	17 58 17.5	19 46.7	0.234 3763	2778	11 40.8
	14	9 7 23.86	4 58.82	17 38 30.8	20 16.5	0.234 6541	2630	11 41.8
	15	9 12 22.68	4 57.77	17 18 14.3	20 45.6	0.234 9171	2483	11 42.9
	16	9 17 20.45	4 56.71	16 57 28.7	21 14.1	0.235 1654	2336	11 43.9
	17	9 22 17.16	4 55.66	+16 36 14.6	21 41.9	0.235 3990	2191	11 44.9
	18	9 27 12.82	4 54.60	16 14 32.7	22 9.0	0.235 6181	2046	11 45.9
	19	9 32 7.42	4 53.56	15 52 23.7	22 35.5	0.235 8227	1903	11 46.8
	20	9 37 0.98	4 52.52	15 29 48.2	23 1.2	0.236 0130	1760	11 47.8
	21	9 41 53.50	4 51.49	15 6 47.0	23 26.3	0.236 1890	1620	11 48.7
	22	9 46 44.99	4 50.46	14 43 20.7	23 50.6	0.236 3510	1480	11 49.6
	23	9 51 35.45	4 49.47	+14 19 30.1	24 14.3	0.236 4990	1342	11 50.5
	24	9 56 24.92	4 48.48	13 55 15.8	24 37.3	0.236 6332	1204	11 51.3
	25	10 1 13.40	4 47.51	13 30 38.5	24 59.5	0.236 7536	1069	11 52.2
	26	10 6 0.91	4 46.57	13 5 39.0	25 21.0	0.236 8605	933	11 53.1
	27	10 10 47.48	4 45.64	12 40 18.0	25 41.9	0.236 9538	798	11 53.9
	28	10 15 33.12	4 44.74	12 14 36.1	26 2.1	0.237 0336	664	11 54.7
	29	10 20 17.86	4 43.86	+11 48 34.0	26 21.5	0.237 1000	531	11 55.5
	30	10 25 1.72	4 43.02	11 22 12.5	26 40.2	0.237 1531	398	11 56.3
	31	10 29 44.74	4 42.19	10 55 32.3	26 58.2	0.237 1929	266	11 57.0
Sept.	1	10 34 26.93	4 41.40	10 28 34.1	27 15.4	0.237 2195	133	11 57.8
	2	10 39 8.33	4 40.65	10 1 18.7	27 32.0	0.237 2328	2	11 58.5
	3	10 43 48.98		+ 9 33 46.7		0.237 2330		11 59.3

Tag	0ʰ Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Sept. 3	10 43 48.98	4 39.91	+ 9 33 46.7	27 48.0	0.237 2330	130	11 59.3
4	10 48 28.89	4 39.22	9 5 58.7	28 3.0	0.237 2200	261	12 0.0
5	10 53 8.11	4 38.56	8 37 55.7	28 17.3	0.237 1939	392	12 0.7
6	10 57 46.67	4 37.92	8 9 38.4	28 31.0	0.237 1547	524	12 1.4
7	11 2 24.59	4 37.33	7 41 7.4	28 44.0	0.237 1023	655	12 2.1
8	11 7 1.92	4 36.77	7 12 23.4	28 56.2	0.237 0368	787	12 2.7
9	11 11 38.69	4 36.24	+ 6 43 27.2	29 7.6	0.236 9581	919	12 3.4
10	11 16 14.93	4 35.75	6 14 19.6	29 18.4	0.236 8662	1052	12 4.1
11	11 20 50.68	4 35.30	5 45 1.2	29 28.4	0.236 7610	1185	12 4.7
12	11 25 25.98	4 34.88	5 15 32.8	29 37.6	0.236 6425	1317	12 5.4
13	11 30 0.86	4 34.50	4 45 55.2	29 46.1	0.236 5108	1449	12 6.0
14	11 34 35.36	4 34.16	4 16 9.1	29 53.8	0.236 3659	1582	12 6.6
15	11 39 9.52	4 33.84	+ 3 46 15.3	30 0.9	0.236 2077	1713	12 7.2
16	11 43 43.36	4 33.57	3 16 14.4	30 7.1	0.236 0364	1842	12 7.9
17	11 48 16.93	4 33.34	2 46 7.3	30 12.7	0.235 8522	1970	12 8.5
18	11 52 50.27	4 33.15	2 15 54.6	30 17.4	0.235 6552	2098	12 9.1
19	11 57 23.42	4 32.99	1 45 37.2	30 21.6	0.235 4454	2225	12 9.7
20	12 1 56.41	4 32.88	1 15 15.6	30 24.9	0.235 2229	2350	12 10.3
21	12 6 29.29	4 32.81	+ 0 44 50.7	30 27.4	0.234 9879	2474	12 10.9
22	12 11 2.10	4 32.77	+ 0 14 23.3	30 29.4	0.234 7405	2597	12 11.5
23	12 15 34.87	4 32.79	− 0 16 6.1	30 30.5	0.234 4808	2720	12 12.1
24	12 20 7.66	4 32.85	0 46 36.6	30 30.9	0.234 2088	2841	12 12.7
25	12 24 40.51	4 32.95	1 17 7.5	30 30.6	0.233 9247	2962	12 13.3
26	12 29 13.46	4 33.10	1 47 38.1	30 29.5	0.233 6285	3083	12 13.9
27	12 33 46.56	4 33.29	− 2 18 7.6	30 27.8	0.233 3202	3201	12 14.5
28	12 38 19.85	4 33.52	2 48 35.4	30 25.2	0.233 0001	3320	12 15.2
29	12 42 53.37	4 33.80	3 19 0.6	30 21.9	0.232 6681	3437	12 15.8
30	12 47 27.17	4 34.11	3 49 22.5	30 18.0	0.232 3244	3554	12 16.4
Okt. 1	12 52 1.28	4 34.49	4 19 40.5	30 13.1	0.231 9690	3672	12 17.0
2	12 56 35.77	4 34.89	4 49 53.6	30 7.7	0.231 6018	3787	12 17.7
3	13 1 10.66	4 35.34	− 5 20 1.3	30 1.5	0.231 2231	3903	12 18.3
4	13 5 46.00	4 35.84	5 50 2.8	29 54.5	0.230 8328	4020	12 19.0
5	13 10 21.84	4 36.36	6 19 57.3	29 46.7	0.230 4308	4138	12 19.6
6	13 14 58.20	4 36.95	6 49 44.0	29 38.2	0.230 0170	4254	12 20.3
7	13 19 35.15	4 37.56	7 19 22.2	29 28.9	0.229 5916	4373	12 21.0
8	13 24 12.71	4 38.22	7 48 51.1	29 18.9	0.229 1543	4492	12 21.7
9	13 28 50.93	4 38.91	− 8 18 10.0	29 8.1	0.228 7051	4610	12 22.4
10	13 33 29.84	4 39.64	8 47 18.1	28 56.4	0.228 2441	4730	12 23.1
11	13 38 9.48	4 40.42	9 16 14.5	28 44.0	0.227 7711	4848	12 23.8
12	13 42 49.90	4 41.21	9 44 58.5	28 30.9	0.227 2863	4968	12 24.5
13	13 47 31.11	4 42.05	10 13 29.4	28 16.9	0.226 7895	5086	12 25.3
14	13 52 13.16		−10 41 46.3		0.226 2809		12 26.0

Tag	0ʰ Welt-Zeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1939	h m s	m s	° ′ ″	′ ″			h m
Okt. 14	13 52 13.16	4 42.91	−10 41 46.3	28 2.1	0.226 2809	5206	12 26.0
15	13 56 56.07	4 43.81	11 9 48.4	27 46.5	0.225 7603	5324	12 26.8
16	14 1 39.88	4 44.73	11 37 34.9	27 30.2	0.225 2279	5443	12 27.6
17	14 6 24.61	4 45.68	12 5 5.1	27 12.9	0.224 6836	5560	12 28.4
18	14 11 10.29	4 46.68	12 32 18.0	26 55.0	0.224 1276	5677	12 29.3
19	14 15 56.97	4 47.68	12 59 13.0	26 36.2	0.223 5599	5791	12 30.1
20	14 20 44.65	4 48.72	−13 25 49.2	26 16.7	0.222 9808	5905	12 31.0
21	14 25 33.37	4 49.79	13 52 5.9	25 56.3	0.222 3903	6019	12 31.9
22	14 30 23.16	4 50.88	14 18 2.2	25 35.2	0.221 7884	6133	12 32.8
23	14 35 14.04	4 51.99	14 43 37.4	25 13.2	0.221 1751	6244	12 33.7
24	14 40 6.03	4 53.13	15 8 50.6	24 50.4	0.220 5507	6357	12 34.6
25	14 44 59.16	4 54.28	15 33 41.0	24 26.8	0.219 9150	6468	12 35.6
26	14 49 53.44	4 55.46	−15 58 7.8	24 2.5	0.219 2682	6578	12 36.5
27	14 54 48.90	4 56.64	16 22 10.3	23 37.4	0.218 6104	6689	12 37.5
28	14 59 45.54	4 57.86	16 45 47.7	23 11.4	0.217 9415	6799	12 38.5
29	15 4 43.40	4 59.07	17 8 59.1	22 44.7	0.217 2616	6907	12 39.6
30	15 9 42.47	5 0.30	17 31 43.8	22 17.2	0.216 5709	7017	12 40.6
31	15 14 42.77	5 1.55	17 54 1.0	21 49.0	0.215 8692	7125	12 41.7
Nov. 1	15 19 44.32	5 2.79	−18 15 50.0	21 19.9	0.215 1567	7234	12 42.8
2	15 24 47.11	5 4.03	18 37 9.9	20 50.0	0.214 4333	7344	12 43.9
3	15 29 51.14	5 5.29	18 57 59.9	20 19.4	0.213 6989	7454	12 45.0
4	15 34 56.43	5 6.55	19 18 19.3	19 48.1	0.212 9535	7564	12 46.2
5	15 40 2.98	5 7.79	19 38 7.4	19 15.9	0.212 1971	7677	12 47.4
6	15 45 10.77	5 9.03	19 57 23.3	18 43.0	0.211 4294	7789	12 48.6
7	15 50 19.80	5 10.26	−20 16 6.3	18 9.5	0.210 6505	7903	12 49.8
8	15 55 30.06	5 11.47	20 34 15.8	17 35.1	0.209 8602	8018	12 51.0
9	16 0 41.53	5 12.67	20 51 50.9	17 0.1	0.209 0584	8134	12 52.3
10	16 5 54.20	5 13.84	21 8 51.0	16 24.4	0.208 2450	8249	12 53.6
11	16 11 8.04	5 14.98	21 25 15.4	15 47.9	0.207 4201	8366	12 54.9
12	16 16 23.02	5 16.10	21 41 3.3	15 10.9	0.206 5835	8482	12 56.2
13	16 21 39.12	5 17.20	−21 56 14.2	14 33.1	0.205 7353	8599	12 57.5
14	16 26 56.32	5 18.24	22 10 47.3	13 54.8	0.204 8754	8716	12 58.9
15	16 32 14.56	5 19.25	22 24 42.1	13 15.8	0.204 0038	8833	13 0.3
16	16 37 33.81	5 20.24	22 37 57.9	12 36.3	0.203 1205	8949	13 1.7
17	16 42 54.05	5 21.17	22 50 34.2	11 56.1	0.202 2256	9066	13 3.1
18	16 48 15.22	5 22.07	23 2 30.3	11 15.4	0.201 3190	9183	13 4.5
19	16 53 37.29	5 22.92	−23 13 45.7	10 34.3	0.200 4007	9298	13 5.9
20	16 59 0.21	5 23.72	23 24 20.0	9 52.7	0.199 4709	9415	13 7.4
21	17 4 23.93	5 24.47	23 34 12.7	9 10.5	0.198 5294	9531	13 8.8
22	17 9 48.40	5 25.17	23 43 23.2	8 27.9	0.197 5763	9646	13 10.3
23	17 15 13.57	5 25.81	23 51 51.1	7 45.0	0.196 6117	9760	13 11.8
24	17 20 39.38		−23 59 36.1		0.195 6357		13 13.3

Tag		0ʰ Welt-Zeit						Obere Kulmination in Greenwich
		Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1939		h m s	m s	° ′ ″	′ ″			h m
Nov.	24	17 20 39.38	5 26.40	−23 59 36.1	7 1.7	0.195 6357	9874	13 13.3
	25	17 26 5.78	5 26.93	24 6 37.8	6 18.0	0.194 6483	9987	13 14.8
	26	17 31 32.71	5 27.40	24 12 55.8	5 34.0	0.193 6496	1 0101	13 16.3
	27	17 37 0.11	5 27.81	24 18 29.8	4 49.7	0.192 6395	1 0216	13 17.8
	28	17 42 27.92	5 28.16	24 23 19.5	4 5.2	0.191 6179	1 0331	13 19.3
	29	17 47 56.08	5 28.46	24 27 24.7	3 20.4	0.190 5848	1 0446	13 20.9
	30	17 53 24.54	5 28.69	−24 30 45.1	2 35.5	0.189 5402	1 0562	13 22.4
Dez.	1	17 58 53.23	5 28.85	24 33 20.6	1 50.4	0.188 4840	1 0679	13 23.9
	2	18 4 22.08	5 28.94	24 35 11.0	1 5.2	0.187 4161	1 0797	13 25.5
	3	18 9 51.02	5 28.98	24 36 16.2	0 20.0	0.186 3364	1 0914	13 27.0
	4	18 15 20.00	5 28.95	24 36 36.2	0 25.3	0.185 2450	1 1035	13 28.6
	5	18 20 48.95	5 28.84	24 36 10.9	1 10.6	0.184 1415	1 1157	13 30.1
	6	18 26 17.79	5 28.67	−24 35 0.3	1 55.8	0.183 0258	1 1280	13 31.6
	7	18 31 46.46	5 28.44	24 33 4.5	2 41.0	0.181 8978	1 1405	13 33.2
	8	18 37 14.90	5 28.13	24 30 23.5	3 26.1	0.180 7573	1 1531	13 34.7
	9	18 42 43.03	5 27.76	24 26 57.4	4 11.1	0.179 6042	1 1659	13 36.2
	10	18 48 10.79	5 27.31	24 22 46.3	4 55.8	0.178 4383	1 1788	13 37.8
	11	18 53 38.10	5 26.80	24 17 50.5	5 40.3	0.177 2595	1 1919	13 39.3
	12	18 59 4.90	5 26.22	−24 12 10.2	6 24.7	0.176 0676	1 2049	13 40.8
	13	19 4 31.12	5 25.58	24 5 45.5	7 8.7	0.174 8627	1 2181	13 42.2
	14	19 9 56.70	5 24.88	23 58 36.8	7 52.3	0.173 6446	1 2314	13 43.7
	15	19 15 21.58	5 24.11	23 50 44.5	8 35.7	0.172 4132	1 2448	13 45.2
	16	19 20 45.69	5 23.29	23 42 8.8	9 18.7	0.171 1684	1 2582	13 46.7
	17	19 26 8.98	5 22.41	23 32 50.1	10 1.2	0.169 9102	1 2716	13 48.1
	18	19 31 31.39	5 21.48	−23 22 48.9	10 43.3	0.168 6386	1 2852	13 49.5
	19	19 36 52.87	5 20.49	23 12 5.6	11 25.0	0.167 3534	1 2986	13 50.9
	20	19 42 13.36	5 19.46	23 0 40.6	12 6.1	0.166 0548	1 3123	13 52.3
	21	19 47 32.82	5 18.38	22 48 34.5	12 46.8	0.164 7425	1 3259	13 53.7
	22	19 52 51.20	5 17.27	22 35 47.7	13 26.9	0.163 4166	1 3396	13 55.0
	23	19 58 8.47	5 16.11	22 22 20.8	14 6.5	0.162 0770	1 3534	13 56.4
	24	20 3 24.58	5 14.91	−22 8 14.3	14 45.5	0.160 7236	1 3672	13 57.7
	25	20 8 39.49	5 13.69	21 53 28.8	15 23.9	0.159 3564	1 3810	13 59.0
	26	20 13 53.18	5 12.42	21 38 4.9	16 1.6	0.157 9754	1 3947	14 0.3
	27	20 19 5.60	5 11.15	21 22 3.3	16 38.8	0.156 5807	1 4085	14 1.5
	28	20 24 16.75	5 9.84	21 5 24.5	17 15.2	0.155 1722	1 4226	14 2.7
	29	20 29 26.59	5 8.51	20 48 9.3	17 51.1	0.153 7496	1 4367	14 3.9
	30	20 34 35.10	5 7.18	−20 30 18.2	18 26.3	0.152 3129	1 4510	14 5.1
	31	20 39 42.28	5 5.82	20 11 51.9	19 0.7	0.150 8619	1 4654	14 6.3
	32	20 44 48.10		−19 52 51.2		0.149 3965		14 7.4

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Jan. 0	14 38 55.35	2 26.30	−14 30 8.7	11 42.1	0.289 7735	1 9676	8 3.4
1	14 41 21.65	2 26.48	14 41 50.8	11 35.9	0.287 8059	1 9837	8 1.9
2	14 43 48.13	2 26.68	14 53 26.7	11 29.8	0.285 8222	2 0000	8 0.4
3	14 46 14.81	2 26.88	15 4 56.5	11 23.6	0.283 8222	2 0162	7 58.9
4	14 48 41.69	2 27.07	15 16 20.1	11 17.2	0.281 8060	2 0325	7 57.4
5	14 51 8.76	2 27.28	15 27 37.3	11 10.9	0.279 7735	2 0490	7 55.9
6	14 53 36.04	2 27.47	−15 38 48.2	11 4.5	0.277 7245	2 0656	7 54.4
7	14 56 3.51	2 27.68	15 49 52.7	10 58.0	0.275 6589	2 0822	7 52.9
8	14 58 31.19	2 27.88	16 0 50.7	10 51.4	0.273 5767	2 0992	7 51.4
9	15 0 59.07	2 28.08	16 11 42.1	10 44.7	0.271 4775	2 1161	7 50.0
10	15 3 27.15	2 28.27	16 22 26.8	10 38.0	0.269 3614	2 1333	7 48.5
11	15 5 55.42	2 28.47	16 33 4.8	10 31.1	0.267 2281	2 1504	7 47.0
12	15 8 23.89	2 28.66	−16 43 35.9	10 24.2	0.265 0777	2 1678	7 45.6
13	15 10 52.55	2 28.85	16 54 0.1	10 17.2	0.262 9099	2 1851	7 44.1
14	15 13 21.40	2 29.02	17 4 17.3	10 10.2	0.260 7248	2 2027	7 42.6
15	15 15 50.42	2 29.20	17 14 27.5	10 3.0	0.258 5221	2 2202	7 41.2
16	15 18 19.62	2 29.37	17 24 30.5	9 55.8	0.256 3019	2 2378	7 39.7
17	15 20 48.99	2 29.54	17 34 26.3	9 48.5	0.254 0641	2 2554	7 38.3
18	15 23 18.53	2 29.70	−17 44 14.8	9 41.2	0.251 8087	2 2731	7 36.8
19	15 25 48.23	2 29.85	17 53 56.0	9 33.8	0.249 5356	2 2907	7 35.4
20	15 28 18.08	2 30.01	18 3 29.8	9 26.3	0.247 2449	2 3084	7 33.9
21	15 30 48.09	2 30.16	18 12 56.1	9 18.7	0.244 9365	2 3259	7 32.5
22	15 33 18.25	2 30.29	18 22 14.8	9 11.2	0.242 6106	2 3436	7 31.1
23	15 35 48.54	2 30.43	18 31 26.0	9 3.5	0.240 2670	2 3611	7 29.6
24	15 38 18.97	2 30.57	−18 40 29.5	8 55.7	0.237 9059	2 3788	7 28.2
25	15 40 49.54	2 30.70	18 49 25.2	8 48.0	0.235 5271	2 3963	7 26.8
26	15 43 20.24	2 30.82	18 58 13.2	8 40.1	0.233 1308	2 4139	7 25.3
27	15 45 51.06	2 30.95	19 6 53.3	8 32.3	0.230 7169	2 4315	7 23.9
28	15 48 22.01	2 31.07	19 15 25.6	8 24.3	0.228 2854	2 4490	7 22.5
29	15 50 53.08	2 31.18	19 23 49.9	8 16.3	0.225 8364	2 4665	7 21.1
30	15 53 24.26	2 31.30	−19 32 6.2	8 8.3	0.223 3699	2 4841	7 19.6
31	15 55 55.56	2 31.41	19 40 14.5	8 0.3	0.220 8858	2 5017	7 18.2
Febr. 1	15 58 26.97	2 31.53	19 48 14.8	7 52.2	0.218 3841	2 5194	7 16.8
2	16 0 58.50	2 31.63	19 56 7.0	7 44.1	0.215 8647	2 5371	7 15.4
3	16 3 30.13	2 31.73	20 3 51.1	7 35.9	0.213 3276	2 5551	7 14.0
4	16 6 1.86	2 31.84	20 11 27.0	7 27.6	0.210 7725	2 5731	7 12.6
5	16 8 33.70	2 31.93	−20 18 54.6	7 19.5	0.208 1994	2 5913	7 11.2
6	16 11 5.63	2 32.02	20 26 14.1	7 11.1	0.205 6081	2 6097	7 9.7
7	16 13 37.65	2 32.10	20 33 25.2	7 2.8	0.202 9984	2 6281	7 8.3
8	16 16 9.75	2 32.17	20 40 28.0	6 54.5	0.200 3703	2 6468	7 6.9
9	16 18 41.92	2 32.24	20 47 22.5	6 46.1	0.197 7235	2 6657	7 5.5
10	16 21 14.16		−20 54 8.6		0.195 0578		7 4.1

Tag	0ʰ Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Febr. 10	16 21 14.16	2 32.29	−20 54 8.6	6 37.6	0.195 0578	2 6846	7 4.1
11	16 23 46.45	2 32.34	21 0 46.2	6 29.2	0.192 3732	2 7035	7 2.7
12	16 26 18.79	2 32.37	21 7 15.4	6 20.8	0.189 6697	2 7227	7 1.3
13	16 28 51.16	2 32.39	21 13 36.2	6 12.3	0.186 9470	2 7418	6 59.9
14	16 31 23.55	2 32.40	21 19 48.5	6 3.8	0.184 2052	2 7610	6 58.5
15	16 33 55.95	2 32.40	21 25 52.3	5 55.2	0.181 4442	2 7802	6 57.1
16	16 36 28.35	2 32.40	−21 31 47.5	5 46.8	0.178 6640	2 7994	6 55.7
17	16 39 0.75	2 32.38	21 37 34.3	5 38.1	0.175 8646	2 8186	6 54.3
18	16 41 33.13	2 32.34	21 43 12.4	5 29.6	0.173 0460	2 8379	6 52.9
19	16 44 5.47	2 32.31	21 48 42.0	5 21.0	0.170 2081	2 8571	6 51.5
20	16 46 37.78	2 32.25	21 54 3.0	5 12.5	0.167 3510	2 8763	6 50.1
21	16 49 10.03	2 32.19	21 59 15.5	5 3.9	0.164 4747	2 8955	6 48.7
22	16 51 42.22	2 32.11	−22 4 19.4	4 55.3	0.161 5792	2 9147	6 47.3
23	16 54 14.33	2 32.03	22 9 14.7	4 46.8	0.158 6645	2 9338	6 45.9
24	16 56 46.36	2 31.94	22 14 1.5	4 38.3	0.155 7307	2 9529	6 44.5
25	16 59 18.30	2 31.85	22 18 39.8	4 29.7	0.152 7778	2 9720	6 43.1
26	17 1 50.15	2 31.75	22 23 9.5	4 21.1	0.149 8058	2 9911	6 41.7
27	17 4 21.90	2 31.65	22 27 30.6	4 12.7	0.146 8147	3 0102	6 40.2
28	17 6 53.55	2 31.52	−22 31 43.3	4 4.2	0.143 8045	3 0293	6 38.8
März 1	17 9 25.07	2 31.39	22 35 47.5	3 55.7	0.140 7752	3 0484	6 37.4
2	17 11 56.46	2 31.26	22 39 43.2	3 47.3	0.137 7268	3 0676	6 36.0
3	17 14 27.72	2 31.12	22 43 30.5	3 38.9	0.134 6592	3 0870	6 34.6
4	17 16 58.84	2 30.96	22 47 9.4	3 30.5	0.131 5722	3 1066	6 33.2
5	17 19 29.80	2 30.82	22 50 39.9	3 22.2	0.128 4656	3 1264	6 31.7
6	17 22 0.62	2 30.65	−22 54 2.1	3 13.8	0.125 3392	3 1463	6 30.3
7	17 24 31.27	2 30.46	22 57 15.9	3 5.6	0.122 1929	3 1665	6 28.9
8	17 27 1.73	2 30.28	23 0 21.5	2 57.4	0.119 0264	3 1867	6 27.4
9	17 29 32.01	2 30.07	23 3 18.9	2 49.2	0.115 8397	3 2071	6 26.0
10	17 32 2.08	2 29.84	23 6 8.1	2 41.1	0.112 6326	3 2277	6 24.6
11	17 34 31.92	2 29.61	23 8 49.2	2 33.0	0.109 4049	3 2483	6 23.1
12	17 37 1.53	2 29.35	−23 11 22.2	2 25.0	0.106 1566	3 2692	6 21.7
13	17 39 30.88	2 29.09	23 13 47.2	2 17.0	0.102 8874	3 2902	6 20.2
14	17 41 59.97	2 28.80	23 16 4.2	2 9.2	0.099 5972	3 3112	6 18.8
15	17 44 28.77	2 28.49	23 18 13.4	2 1.4	0.096 2860	3 3322	6 17.3
16	17 46 57.26	2 28.18	23 20 14.8	1 53.7	0.092 9538	3 3532	6 15.8
17	17 49 25.44	2 27.84	23 22 8.5	1 45.9	0.089 6006	3 3743	6 14.4
18	17 51 53.28	2 27.49	−23 23 54.4	1 38.4	0.086 2263	3 3952	6 12.9
19	17 54 20.77	2 27.13	23 25 32.8	1 30.9	0.082 8311	3 4162	6 11.4
20	17 56 47.90	2 26.74	23 27 3.7	1 23.4	0.079 4149	3 4371	6 9.9
21	17 59 14.64	2 26.34	23 28 27.1	1 16.2	0.075 9778	3 4580	6 8.4
22	18 1 40.98	2 25.93	23 29 43.3	1 8.9	0.072 5198	3 4789	6 6.9
23	18 4 6.91		−23 30 52.2		0.069 0409		6 5.4

Tag	0h Welt-Zeit Scheinbare Rektaszension		0h Welt-Zeit Scheinbare Deklination		0h Welt-Zeit log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
März 23	18 4 6.91	2 25.51	−23 30 52.2	1 1.7	0.069 0409	3 4997	6 5.4
24	18 6 32.42	2 25.07	23 31 53.9	0 54.7	0.065 5412	3 5205	6 3.9
25	18 8 57.49	2 24.61	23 32 48.6	0 47.8	0.062 0207	3 5412	6 2.3
26	18 11 22.10	2 24.14	23 33 36.4	0 41.0	0.058 4795	3 5619	6 0.8
27	18 13 46.24	2 23.67	23 34 17.4	0 34.2	0.054 9176	3 5826	5 59.3
28	18 16 9.91	2 23.18	23 34 51.6	0 27.6	0.051 3350	3 6032	5 57.7
29	18 18 33.09	2 22.70	−23 35 19.2	0 21.0	0.047 7318	3 6239	5 56.2
30	18 20 55.79	2 22.19	23 35 40.2	0 14.6	0.044 1079	3 6446	5 54.6
31	18 23 17.98	2 21.68	23 35 54.8	0 8.3	0.040 4633	3 6655	5 53.0
April 1	18 25 39.66	2 21.15	23 36 3.1	0 2.1	0.036 7978	3 6864	5 51.4
2	18 28 0.81	2 20.60	23 36 5.2	0 3.9	0.033 1114	3 7077	5 49.9
3	18 30 21.41	2 20.04	23 36 1.3	0 9.8	0.029 4037	3 7289	5 48.3
4	18 32 41.45	2 19.47	−23 35 51.5	0 15.6	0.025 6748	3 7505	5 46.6
5	18 35 0.92	2 18.88	23 35 35.9	0 21.2	0.021 9243	3 7721	5 45.0
6	18 37 19.80	2 18.27	23 35 14.7	0 26.6	0.018 1522	3 7941	5 43.4
7	18 39 38.07	2 17.64	23 34 48.1	0 31.9	0.014 3581	3 8160	5 41.8
8	18 41 55.71	2 16.99	23 34 16.2	0 37.1	0.010 5421	3 8382	5 40.1
9	18 44 12.70	2 16.32	23 33 39.1	0 42.1	0.006 7039	3 8604	5 38.5
10	18 46 29.02	2 15.62	−23 32 57.0	0 46.8	0.002 8435	3 8828	5 36.8
11	18 48 44.64	2 14.91	23 32 10.2	0 51.5	9.998 9607	3 9050	5 35.1
12	18 50 59.55	2 14.16	23 31 18.7	0 55.9	9.995 0557	3 9274	5 33.4
13	18 53 13.71	2 13.40	23 30 22.8	1 0.1	9.991 1283	3 9497	5 31.7
14	18 55 27.11	2 12.62	23 29 22.7	1 4.2	9.987 1786	3 9720	5 30.0
15	18 57 39.73	2 11.81	23 28 18.5	1 8.1	9.983 2066	3 9942	5 28.3
16	18 59 51.54	2 10.98	−23 27 10.4	1 11.8	9.979 2124	4 0162	5 26.5
17	19 2 2.52	2 10.13	23 25 58.6	1 15.2	9.975 1962	4 0381	5 24.7
18	19 4 12.65	2 9.25	23 24 43.4	1 18.6	9.971 1581	4 0600	5 22.9
19	19 6 21.90	2 8.36	23 23 24.8	1 21.6	9.967 0981	4 0815	5 21.2
20	19 8 30.26	2 7.43	23 22 3.2	1 24.5	9.963 0166	4 1030	5 19.4
21	19 10 37.69	2 6.49	23 20 38.7	1 27.2	9.958 9136	4 1241	5 17.6
22	19 12 44.18	2 5.53	−23 19 11.5	1 29.6	9.954 7895	4 1451	5 15.7
23	19 14 49.71	2 4.56	23 17 41.9	1 31.9	9.950 6444	4 1658	5 13.9
24	19 16 54.27	2 3.56	23 16 10.0	1 34.0	9.946 4786	4 1865	5 12.0
25	19 18 57.83	2 2.55	23 14 36.0	1 35.9	9.942 2921	4 2069	5 10.1
26	19 21 0.38	2 1.52	23 13 0.1	1 37.5	9.938 0852	4 2272	5 8.2
27	19 23 1.90	2 0.47	23 11 22.6	1 38.9	9.933 8580	4 2473	5 6.3
28	19 25 2.37	1 59.40	−23 9 43.7	1 40.1	9.929 6107	4 2675	5 4.4
29	19 27 1.77	1 58.32	23 8 3.6	1 41.1	9.925 3432	4 2877	5 2.4
30	19 29 0.09	1 57.21	23 6 22.5	1 41.8	9.921 0555	4 3077	5 0.4
Mai 1	19 30 57.30	1 56.08	23 4 40.7	1 42.2	9.916 7478	4 3278	4 58.4
2	19 32 53.38	1 54.93	23 2 58.5	1 42.5	9.912 4200	4 3480	4 56.4
3	19 34 48.31		−23 1 16.0		9.908 0720		4 54.4

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Mai 3	19 34 48.31	1 53.76	—23 1 16.0	1 42.4	9.908 0720	4 3680	4 54.4
4	19 36 42.07	1 52.54	22 59 33.6	1 42.1	9.903 7040	4 3882	4 52.4
5	19 38 34.61	1 51.30	22 57 51.5	1 41.5	9.899 3158	4 4083	4 50.3
6	19 40 25.91	1 50.03	22 56 10.0	1 40.5	9.894 9075	4 4281	4 48.2
7	19 42 15.94	1 48.73	22 54 29.5	1 39.4	9.890 4794	4 4478	4 46.1
8	19 44 4.67	1 47.38	22 52 50.1	1 37.8	9.886 0316	4 4673	4 44.0
9	19 45 52.05	1 46.00	—22 51 12.3	1 36.0	9.881 5643	4 4864	4 41.8
10	19 47 38.05	1 44.59	22 49 36.3	1 33.9	9.877 0779	4 5052	4 39.6
11	19 49 22.64	1 43.14	22 48 2.4	1 31.5	9.872 5727	4 5237	4 37.4
12	19 51 5.78	1 41.66	22 46 30.9	1 28.8	9.868 0490	4 5419	4 35.2
13	19 52 47.44	1 40.12	22 45 2.1	1 25.7	9.863 5071	4 5593	4 33.0
14	19 54 27.56	1 38.57	22 43 36.4	1 22.5	9.858 9478	4 5762	4 30.7
15	19 56 6.13	1 36.96	—22 42 13.9	1 18.8	9.854 3716	4 5925	4 28.4
16	19 57 43.09	1 35.31	22 40 55.1	1 14.8	9.849 7791	4 6081	4 26.1
17	19 59 18.40	1 33.63	22 39 40.3	1 10.5	9.845 1710	4 6228	4 23.7
18	20 0 52.03	1 31.91	22 38 29.8	1 5.9	9.840 5482	4 6367	4 21.3
19	20 2 23.94	1 30.15	22 37 23.9	1 1.0	9.835 9115	4 6498	4 18.9
20	20 3 54.09	1 28.36	22 36 22.9	0 55.8	9.831 2617	4 6619	4 16.5
21	20 5 22.45	1 26.54	—22 35 27.1	0 50.4	9.826 5998	4 6731	4 14.0
22	20 6 48.99	1 24.67	22 34 36.7	0 44.6	9.821 9267	4 6834	4 11.5
23	20 8 13.66	1 22.79	22 33 52.1	0 38.6	9.817 2433	4 6927	4 9.0
24	20 9 36.45	1 20.86	22 33 13.5	0 32.4	9.812 5506	4 7011	4 6.4
25	20 10 57.31	1 18.91	22 32 41.1	0 25.7	9.807 8495	4 7084	4 3.8
26	20 12 16.22	1 16.92	22 32 15.4	0 18.9	9.803 1411	4 7149	4 1.2
27	20 13 33.14	1 14.90	—22 31 56.5	0 11.6	9.798 4262	4 7205	3 58.5
28	20 14 48.04	1 12.83	22 31 44.9	0 4.2	9.793 7057	4 7252	3 55.8
29	20 16 0.87	1 10.73	22 31 40.7	0 3.6	9.788 9805	4 7288	3 53.1
30	20 17 11.60	1 8.58	22 31 44.3	0 11.7	9.784 2517	4 7314	3 50.3
31	20 18 20.18	1 6.39	22 31 56.0	0 20.1	9.779 5203	4 7330	3 47.5
Juni 1	20 19 26.57	1 4.15	22 32 16.1	0 28.8	9.774 7873	4 7334	3 44.7
2	20 20 30.72	1 1.87	—22 32 44.9	0 37.8	9.770 0539	4 7325	3 41.8
3	20 21 32.59	0 59.52	22 33 22.7	0 47.2	9.765 3214	4 7302	3 38.9
4	20 22 32.11	0 57.12	22 34 9.9	0 56.9	9.760 5912	4 7264	3 35.9
5	20 23 29.23	0 54.68	22 35 6.8	1 6.8	9.755 8648	4 7211	3 32.9
6	20 24 23.91	0 52.18	22 36 13.6	1 17.0	9.751 1437	4 7137	3 29.9
7	20 25 16.09	0 49.61	22 37 30.6	1 27.5	9.746 4300	4 7046	3 26.8
8	20 26 5.70	0 47.01	—22 38 58.1	1 38.3	9.741 7254	4 6934	3 23.7
9	20 26 52.71	0 44.35	22 40 36.4	1 49.2	9.737 0320	4 6802	3 20.6
10	20 27 37.06	0 41.62	22 42 25.6	2 0.3	9.732 3518	4 6644	3 17.4
11	20 28 18.68	0 38.86	22 44 25.9	2 11.8	9.727 6874	4 6462	3 14.1
12	20 28 57.54	0 36.03	22 46 37.7	2 23.2	9.723 0412	4 6254	3 10.8
13	20 29 33.57		—22 49 0.9		9.718 4158		3 7.5

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Juni 13	20 29 33.57	33.16	−22 49 0.9	2 34.9	9.718 4158	4 6020	3 7.5
14	20 30 6.73	30.23	22 51 35.8	2 46.7	9.713 8138	4 5755	3 4.1
15	20 30 36.96	27.28	22 54 22.5	2 58.6	9.709 2383	4 5458	3 0.7
16	20 31 4.24	24.28	22 57 21.1	3 10.4	9.704 6925	4 5128	2 57.2
17	20 31 28.52	21.24	23 0 31.5	3 22.2	9.700 1797	4 4766	2 53.6
18	20 31 49.76	18.17	23 3 53.7	3 34.0	9.695 7031	4 4368	2 50.1
19	20 32 7.93	15.09	−23 7 27.7	3 45.8	9.691 2663	4 3937	2 46.4
20	20 32 23.02	11.98	23 11 13.5	3 57.3	9.686 8726	4 3472	2 42.7
21	20 32 35.00	8.86	23 15 10.8	4 8.8	9.682 5254	4 2972	2 39.0
22	20 32 43.86	5.73	23 19 19.6	4 20.1	9.678 2282	4 2437	2 35.2
23	20 32 49.59	2.59	23 23 39.7	4 31.1	9.673 9845	4 1867	2 31.4
24	20 32 52.18	0.56	23 28 10.8	4 41.9	9.669 7978	4 1263	2 27.5
25	20 32 51.62	3.72	−23 32 52.7	4 52.4	9.665 6715	4 0624	2 23.5
26	20 32 47.90	6.87	23 37 45.1	5 2.7	9.661 6091	3 9948	2 19.5
27	20 32 41.03	10.03	23 42 47.8	5 12.7	9.657 6143	3 9235	2 15.5
28	20 32 31.00	13.18	23 48 0.5	5 22.2	9.653 6908	3 8485	2 11.4
29	20 32 17.82	16.33	23 53 22.7	5 31.4	9.649 8423	3 7696	2 7.2
30	20 32 1.49	19.47	23 58 54.1	5 40.2	9.646 0727	3 6870	2 3.0
Juli 1	20 31 42.02	22.60	−24 4 34.3	5 48.4	9.642 3857	3 6001	1 58.7
2	20 31 19.42	25.70	24 10 22.7	5 56.1	9.638 7856	3 5092	1 54.4
3	20 30 53.72	28.79	24 16 18.8	6 3.3	9.635 2764	3 4142	1 50.1
4	20 30 24.93	31.84	24 22 22.1	6 9.9	9.631 8622	3 3148	1 45.7
5	20 29 53.09	34.84	24 28 32.0	6 15.7	9.628 5474	3 2111	1 41.2
6	20 29 18.25	37.80	24 34 47.7	6 20.9	9.625 3363	3 1029	1 36.7
7	20 28 40.45	40.71	−24 41 8.6	6 25.2	9.622 2334	2 9908	1 32.1
8	20 27 59.74	43.54	24 47 33.8	6 28.8	9.619 2426	2 8742	1 27.5
9	20 27 16.20	46.28	24 54 2.6	6 31.5	9.616 3684	2 7528	1 22.9
10	20 26 29.92	48.94	25 0 34.1	6 33.3	9.613 6156	2 6274	1 18.2
11	20 25 40.98	51.53	25 7 7.4	6 34.1	9.610 9882	2 4979	1 13.4
12	20 24 49.45	53.96	25 13 41.5	6 33.9	9.608 4903	2 3643	1 8.6
13	20 23 55.49	56.28	−25 20 15.4	6 32.8	9.606 1260	2 2266	1 3.8
14	20 22 59.21	58.47	25 26 48.2	6 30.5	9.603 8994	2 0849	0 58.9
15	20 22 0.74	60.51	25 33 18.7	6 27.3	9.601 8145	1 9395	0 54.0
16	20 21 0.23	62.38	25 39 46.0	6 22.9	9.599 8750	1 7913	0 49.1
17	20 19 57.85	64.06	25 46 8.9	6 17.5	9.598 0837	1 6404	0 44.1
18	20 18 53.79	65.57	25 52 26.4	6 11.1	9.596 4433	1 4867	0 39.1
19	20 17 48.22	66.88	−25 58 37.5	6 3.6	9.594 9566	1 3309	0 34.1
20	20 16 41.34	68.00	26 4 41.1	5 55.0	9.593 6257	1 1738	0 29.1
21	20 15 33.34	68.92	26 10 36.1	5 45.7	9.592 4519	1 0155	0 24.0
22	20 14 24.42	69.63	26 16 21.8	5 35.4	9.591 4364	8560	0 18.9
23	20 13 14.79	70.14	26 21 57.2	5 24.3	9.590 5804	6959	0 13.9
24	20 12 4.65		−26 27 21.5		9.589 8845		0 8.8

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Juli 24	20 12 4.65	70.46	−26 27 21.5	5 12.5	9.589 8845	5362	0 8.8
25	20 10 54.19	70.56	26 32 34.0	4 59.8	9.589 3483	3764	{0 3.7 / 23 58.6}
26	20 9 43.63	70.49	26 37 33.8	4 46.7	9.588 9719	2169	23 53.5
27	20 8 33.14	70.21	26 42 20.5	4 32.9	9.588 7550	581	23 48.4
28	20 7 22.93	69.73	26 46 53.4	4 18.4	9.588 6969	992	23 43.3
29	20 6 13.20	69.07	26 51 11.8	4 3.6	9.588 7961	2559	23 38.2
30	20 5 4.13	68.21	−26 55 15.4	3 48.3	9.589 0520	4114	23 33.1
31	20 3 55.92	67.18	26 59 3.7	3 32.6	9.589 4634	5656	23 28.1
Aug. 1	20 2 48.74	65.95	27 2 36.3	3 16.5	9.590 0290	7175	23 23.1
2	20 1 42.79	64.55	27 5 52.8	3 0.1	9.590 7465	8675	23 18.1
3	20 0 38.24	62.98	27 8 52.9	2 43.6	9.591 6140	1 0155	23 13.1
4	19 59 35.26	61.23	27 11 36.5	2 26.8	9.592 6295	1 1609	23 8.2
5	19 58 34.03	59.31	−27 14 3.3	2 9.8	9.593 7904	1 3035	23 3.2
6	19 57 34.72	57.23	27 16 13.1	1 52.7	9.595 0939	1 4435	22 58.4
7	19 56 37.49	55.00	27 18 5.8	1 35.6	9.596 5374	1 5808	22 53.5
8	19 55 42.49	52.62	27 19 41.4	1 18.5	9.598 1182	1 7150	22 48.7
9	19 54 49.87	50.09	27 20 59.9	1 1.3	9.599 8332	1 8458	22 43.9
10	19 53 59.78	47.43	27 22 1.2	0 44.2	9.601 6790	1 9732	22 39.2
11	19 53 12.35	44.62	−27 22 45.4	0 27.2	9.603 6522	2 0971	22 34.5
12	19 52 27.73	41.69	27 23 12.6	0 10.3	9.605 7493	2 2174	22 29.9
13	19 51 46.04	38.65	27 23 22.9	0 6.5	9.607 9667	2 3334	22 25.3
14	19 51 7.39	35.50	27 23 16.4	0 23.0	9.610 3001	2 4452	22 20.8
15	19 50 31.89	32.25	27 22 53.4	0 39.3	9.612 7453	2 5528	22 16.4
16	19 49 59.64	28.89	27 22 14.1	0 55.4	9.615 2981	2 6561	22 11.9
17	19 49 30.75	25.47	−27 21 18.7	1 11.2	9.617 9542	2 7547	22 7.6
18	19 49 5.28	22.00	27 20 7.5	1 26.6	9.620 7089	2 8487	22 3.3
19	19 48 43.28	18.46	27 18 40.9	1 41.6	9.623 5576	2 9381	21 59.0
20	19 48 24.82	14.88	27 16 59.3	1 56.4	9.626 4957	3 0228	21 54.8
21	19 48 9.94	11.29	27 15 2.9	2 10.7	9.629 5185	3 1031	21 50.7
22	19 47 58.65	7.70	27 12 52.2	2 24.7	9.632 6216	3 1792	21 46.7
23	19 47 50.95	4.08	−27 10 27.5	2 38.3	9.635 8008	3 2511	21 42.7
24	19 47 46.87	0.47	27 7 49.2	2 51.5	9.639 0519	3 3186	21 38.7
25	19 47 46.40	3.11	27 4 57.7	3 4.4	9.642 3705	3 3827	21 34.8
26	19 47 49.51	6.67	27 1 53.3	3 16.9	9.645 7532	3 4430	21 31.0
27	19 47 56.18	10.23	26 58 36.4	3 29.3	9.649 1962	3 4997	21 27.2
28	19 48 6.41	13.75	26 55 7.1	3 41.2	9.652 6959	3 5530	21 23.5
29	19 48 20.16	17.24	−26 51 25.9	3 52.9	9.656 2489	3 6032	21 19.9
30	19 48 37.40	20.70	26 47 33.0	4 4.4	9.659 8521	3 6504	21 16.3
31	19 48 58.10	24.11	26 43 28.6	4 15.7	9.663 5025	3 6945	21 12.7
Sept. 1	19 49 22.21	27.49	26 39 12.9	4 26.6	9.667 1970	3 7358	21 9.3
2	19 49 49.70	30.82	26 34 46.3	4 37.3	9.670 9328	3 7744	21 5.8
3	19 50 20.52		−26 30 9.0		9.674 7072		21 2.5

Tag	Scheinbare Rektaszension (0h Welt-Zeit)		Scheinbare Deklination (0h Welt-Zeit)		log Δ (0h Welt-Zeit)		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Sept. 3	19 50 20.52	0 34.11	−26 30 9.0	4 48.0	9.674 7072	3 8107	21 2.5
4	19 50 54.63	0 37.35	26 25 21.0	4 58.5	9.678 5179	3 8443	20 59.1
5	19 51 31.98	0 40.55	26 20 22.5	5 8.7	9.682 3622	3 8755	20 55.9
6	19 52 12.53	0 43.69	26 15 13.8	5 19.0	9.686 2377	3 9046	20 52.7
7	19 52 56.22	0 46.79	26 9 54.8	5 29.0	9.690 1423	3 9316	20 49.5
8	19 53 43.01	0 49.86	26 4 25.8	5 38.9	9.694 0739	3 9563	20 46.4
9	19 54 32.87	0 52.87	−25 58 46.9	5 48.8	9.698 0302	3 9791	20 43.3
10	19 55 25.74	0 55.84	25 52 58.1	5 58.7	9.702 0093	3 9999	20 40.3
11	19 56 21.58	0 58.76	25 46 59.4	6 8.3	9.706 0092	4 0183	20 37.3
12	19 57 20.34	1 1.63	25 40 51.1	6 17.9	9.710 0275	4 0347	20 34.4
13	19 58 21.97	1 4.45	25 34 33.2	6 27.4	9.714 0622	4 0491	20 31.6
14	19 59 26.42	1 7.22	25 28 5.8	6 36.9	9.718 1113	4 0615	20 28.7
15	20 0 33.64	1 9.92	−25 21 28.9	6 46.3	9.722 1728	4 0718	20 26.0
16	20 1 43.56	1 12.56	25 14 42.6	6 55.5	9.726 2446	4 0803	20 23.2
17	20 2 56.12	1 15.14	25 7 47.1	7 4.7	9.730 3249	4 0870	20 20.5
18	20 4 11.26	1 17.65	25 0 42.4	7 13.8	9.734 4119	4 0920	20 17.9
19	20 5 28.91	1 20.10	24 53 28.6	7 22.9	9.738 5039	4 0955	20 15.3
20	20 6 49.01	1 22.46	24 46 5.7	7 31.9	9.742 5994	4 0976	20 12.7
21	20 8 11.47	1 24.77	−24 38 33.8	7 40.6	9.746 6970	4 0982	20 10.2
22	20 9 36.24	1 26.99	24 30 53.2	7 49.5	9.750 7952	4 0979	20 7.7
23	20 11 3.23	1 29.16	24 23 3.7	7 58.3	9.754 8931	4 0966	20 5.2
24	20 12 32.39	1 31.25	24 15 5.4	8 7.1	9.758 9897	4 0944	20 2.8
25	20 14 3.64	1 33.29	24 6 58.3	8 15.8	9.763 0841	4 0913	20 0.4
26	20 15 36.93	1 35.26	23 58 42.5	8 24.5	9.767 1754	4 0877	19 58.1
27	20 17 12.19	1 37.17	−23 50 18.0	8 33.2	9.771 2631	4 0834	19 55.7
28	20 18 49.36	1 39.01	23 41 44.8	8 41.9	9.775 3465	4 0783	19 53.4
29	20 20 28.37	1 40.80	23 33 2.9	8 50.6	9.779 4248	4 0725	19 51.2
30	20 22 9.17	1 42.53	23 24 12.3	8 59.2	9.783 4973	4 0665	19 48.9
Okt. 1	20 23 51.70	1 44.21	23 15 13.1	9 7.9	9.787 5638	4 0600	19 46.7
2	20 25 35.91	1 45.83	23 6 5.2	9 16.5	9.791 6238	4 0531	19 44.5
3	20 27 21.74	1 47.41	−22 56 48.7	9 25.2	9.795 6769	4 0458	19 42.4
4	20 29 9.15	1 48.94	22 47 23.5	9 33.9	9.799 7227	4 0384	19 40.3
5	20 30 58.09	1 50.42	22 37 49.6	9 42.6	9.803 7611	4 0305	19 38.2
6	20 32 48.51	1 51.87	22 28 7.0	9 51.3	9.807 7916	4 0222	19 36.1
7	20 34 40.38	1 53.27	22 18 15.7	10 0.0	9.811 8138	4 0137	19 34.0
8	20 36 33.65	1 54.63	22 8 15.7	10 8.7	9.815 8275	4 0047	19 32.0
9	20 38 28.28	1 55.96	−21 58 7.0	10 17.5	9.819 8322	3 9952	19 30.0
10	20 40 24.24	1 57.25	21 47 49.5	10 26.2	9.823 8274	3 9854	19 28.0
11	20 42 21.49	1 58.50	21 37 23.3	10 35.0	9.827 8128	3 9750	19 26.0
12	20 44 19.99	1 59.72	21 26 48.3	10 43.6	9.831 7878	3 9641	19 24.1
13	20 46 19.71	2 0.89	21 16 4.7	10 52.4	9.835 7519	3 9527	19 22.1
14	20 48 20.60		−21 5 12.3		9.839 7046		19 20.2

Tag	0h Welt-Zeit: Scheinbare Rektaszension		0h Welt-Zeit: Scheinbare Deklination		0h Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Okt. 14	20 48 20.60	2 2.03	−21 5 12.3	11 0.9	9.839 7046	3 9409	19 20.2
15	20 50 22.63	2 3.13	20 54 11.4	11 9.5	9.843 6455	3 9284	19 18.3
16	20 52 25.76	2 4.18	20 43 1.9	11 18.1	9.847 5739	3 9156	19 16.5
17	20 54 29.94	2 5.18	20 31 43.8	11 26.4	9.851 4895	3 9025	19 14.6
18	20 56 35.12	2 6.16	20 20 17.4	11 34.9	9.855 3920	3 8890	19 12.8
19	20 58 41.28	2 7.08	20 8 42.5	11 43.1	9.859 2810	3 8751	19 10.9
20	21 0 48.36	2 7.97	−19 56 59.4	11 51.3	9.863 1561	3 8611	19 9.1
21	21 2 56.33	2 8.81	19 45 8.1	11 59.6	9.867 0172	3 8471	19 7.3
22	21 5 5.14	2 9.63	19 33 8.5	12 7.6	9.870 8643	3 8329	19 5.5
23	21 7 14.77	2 10.39	19 21 0.9	12 15.6	9.874 6972	3 8187	19 3.8
24	21 9 25.16	2 11.14	19 8 45.3	12 23.7	9.878 5159	3 8045	19 2.0
25	21 11 36.30	2 11.84	18 56 21.6	12 31.5	9.882 3204	3 7902	19 0.3
26	21 13 48.14	2 12.51	−18 43 50.1	12 39.3	9.886 1106	3 7760	18 58.5
27	21 16 0.65	2 13.15	18 31 10.8	12 47.1	9.889 8866	3 7618	18 56.8
28	21 18 13.80	2 13.77	18 18 23.7	12 54.8	9.893 6484	3 7476	18 55.1
29	21 20 27.57	2 14.35	18 5 28.9	13 2.3	9.897 3960	3 7336	18 53.4
30	21 22 41.92	2 14.90	17 52 26.6	13 9.9	9.901 1296	3 7197	18 51.7
31	21 24 56.82	2 15.44	17 39 16.7	13 17.4	9.904 8493	3 7060	18 50.0
Nov. 1	21 27 12.26	2 15.96	−17 25 59.3	13 24.8	9.908 5553	3 6922	18 48.4
2	21 29 28.22	2 16.45	17 12 34.5	13 32.1	9.912 2475	3 6787	18 46.7
3	21 31 44.67	2 16.93	16 59 2.4	13 39.5	9.915 9262	3 6651	18 45.0
4	21 34 1.60	2 17.40	16 45 22.9	13 46.7	9.919 5913	3 6517	18 43.4
5	21 36 19.00	2 17.84	16 31 36.2	13 53.9	9.923 2430	3 6381	18 41.7
6	21 38 36.84	2 18.28	16 17 42.3	14 1.0	9.926 8811	3 6245	18 40.1
7	21 40 55.12	2 18.70	−16 3 41.3	14 8.0	9.930 5056	3 6108	18 38.5
8	21 43 13.82	2 19.10	15 49 33.3	14 14.9	9.934 1164	3 5972	18 36.9
9	21 45 32.92	2 19.49	15 35 18.4	14 21.8	9.937 7136	3 5832	18 35.2
10	21 47 52.41	2 19.87	15 20 56.6	14 28.6	9.941 2968	3 5691	18 33.6
11	21 50 12.28	2 20.23	15 6 28.0	14 35.1	9.944 8659	3 5548	18 32.0
12	21 52 32.51	2 20.58	14 51 52.9	14 41.8	9.948 4207	3 5403	18 30.4
13	21 54 53.09	2 20.91	−14 37 11.1	14 48.2	9.951 9610	3 5257	18 28.8
14	21 57 14.00	2 21.23	14 22 22.9	14 54.4	9.955 4867	3 5108	18 27.2
15	21 59 35.23	2 21.52	14 7 28.5	15 0.7	9.958 9975	3 4959	18 25.6
16	22 1 56.75	2 21.79	13 52 27.8	15 6.7	9.962 4934	3 4808	18 24.1
17	22 4 18.54	2 22.05	13 37 21.1	15 12.6	9.965 9742	3 4658	18 22.5
18	22 6 40.59	2 22.30	13 22 8.5	15 18.3	9.969 4400	3 4507	18 20.9
19	22 9 2.89	2 22.52	−13 6 50.2	15 24.0	9.972 8907	3 4357	18 19.3
20	22 11 25.41	2 22.73	12 51 26.2	15 29.5	9.976 3264	3 4207	18 17.8
21	22 13 48.14	2 22.94	12 35 56.7	15 34.8	9.979 7471	3 4058	18 16.2
22	22 16 11.08	2 23.12	12 20 21.9	15 40.1	9.983 1529	3 3910	18 14.7
23	22 18 34.20	2 23.30	12 4 41.8	15 45.2	9.986 5439	3 3761	18 13.1
24	22 20 57.50		−11 48 56.6		9.989 9200		18 11.6

Tag	0ʰ Welt-Zeit: Scheinbare Rektaszension		0ʰ Welt-Zeit: Scheinbare Deklination		0ʰ Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1939	h m s	m s	° ′ ″	′ ″			h m
Nov. 24	22 20 57.50	2 23.46	−11 48 56.6	15 50.1	9.989 9200	3 3613	18 11.6
25	22 23 20.96	2 23.61	11 33 6.5	15 54.9	9.993 2813	3 3467	18 10.0
26	22 25 44.57	2 23.75	11 17 11.6	15 59.7	9.996 6280	3 3323	18 8.5
27	22 28 8.32	2 23.88	11 1 11.9	16 4.3	9.999 9603	3 3180	18 6.9
28	22 30 32.20	2 24.01	10 45 7.6	16 8.7	0.003 2783	3 3039	18 5.4
29	22 32 56.21	2 24.13	10 28 58.9	16 13.2	0.006 5822	3 2900	18 3.8
30	22 35 20.34	2 24.25	−10 12 45.7	16 17.4	0.009 8722	3 2762	18 2.3
Dez. 1	22 37 44.59	2 24.36	9 56 28.3	16 21.5	0.013 1484	3 2625	18 0.8
2	22 40 8.95	2 24.48	9 40 6.8	16 25.6	0.016 4109	3 2488	17 59.2
3	22 42 33.43	2 24.59	9 23 41.2	16 29.5	0.019 6597	3 2353	17 57.7
4	22 44 58.02	2 24.71	9 7 11.7	16 33.3	0.022 8950	3 2216	17 56.2
5	22 47 22.73	2 24.81	8 50 38.4	16 37.0	0.026 1166	3 2080	17 54.7
6	22 49 47.54	2 24.93	− 8 34 1.4	16 40.5	0.029 3246	3 1943	17 53.1
7	22 52 12.47	2 25.04	8 17 20.9	16 44.1	0.032 5189	3 1806	17 51.6
8	22 54 37.51	2 25.15	8 0 36.8	16 47.4	0.035 6995	3 1667	17 50.1
9	22 57 2.66	2 25.25	7 43 49.4	16 50.5	0.038 8662	3 1527	17 48.6
10	22 59 27.91	2 25.37	7 26 58.9	16 53.7	0.042 0189	3 1387	17 47.0
11	23 1 53.28	2 25.47	7 10 5.2	16 56.7	0.045 1576	3 1245	17 45.5
12	23 4 18.75	2 25.57	− 6 53 8.5	16 59.4	0.048 2821	3 1102	17 44.0
13	23 6 44.32	2 25.66	6 36 9.1	17 2.0	0.051 3923	3 0958	17 42.5
14	23 9 9.98	2 25.76	6 19 7.1	17 4.6	0.054 4881	3 0813	17 41.0
15	23 11 35.74	2 25.84	6 2 2.5	17 6.9	0.057 5694	3 0668	17 39.5
16	23 14 1.58	2 25.93	5 44 55.6	17 9.0	0.060 6362	3 0522	17 38.0
17	23 16 27.51	2 26.01	5 27 46.6	17 11.1	0.063 6884	3 0376	17 36.5
18	23 18 53.52	2 26.08	− 5 10 35.5	17 13.0	0.066 7260	3 0231	17 35.0
19	23 21 19.60	2 26.16	4 53 22.5	17 14.8	0.069 7491	3 0087	17 33.4
20	23 23 45.76	2 26.23	4 36 7.7	17 16.4	0.072 7578	2 9942	17 31.9
21	23 26 11.99	2 26.30	4 18 51.3	17 17.8	0.075 7520	2 9798	17 30.4
22	23 28 38.29	2 26.36	4 1 33.5	17 19.1	0.078 7318	2 9654	17 28.9
23	23 31 4.65	2 26.42	3 44 14.4	17 20.3	0.081 6972	2 9512	17 27.4
24	23 33 31.07	2 26.49	− 3 26 54.1	17 21.3	0.084 6484	2 9370	17 25.9
25	23 35 57.56	2 26.54	3 9 32.8	17 22.1	0.087 5854	2 9231	17 24.4
26	23 38 24.10	2 26.61	2 52 10.7	17 22.9	0.090 5085	2 9092	17 22.9
27	23 40 50.71	2 26.67	2 34 47.8	17 23.5	0.093 4177	2 8955	17 21.4
28	23 43 17.38	2 26.74	2 17 24.3	17 24.0	0.096 3132	2 8819	17 19.9
29	23 45 44.12	2 26.81	2 0 0.3	17 24.4	0.099 1951	2 8684	17 18.5
30	23 48 10.93	2 26.89	− 1 42 35.9	17 24.7	0.102 0635	2 8550	17 17.0
31	23 50 37.82	2 26.98	1 25 11.2	17 24.8	0.104 9185	2 8416	17 15.5
32	23 53 4.80		− 1 7 46.4		0.107 7601		17 14.0

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Jan. 0	22 10 43.22	44.26	−12 20 23.1	4 10.4	0.743 7933	9541	15 33.6
1	22 11 27.48	44.60	12 16 12.7	4 12.8	0.744 7474	9410	15 30.4
2	22 12 12.08	44.94	12 11 59.9	4 15.0	0.745 6884	9277	15 27.2
3	22 12 57.02	45.25	12 7 44.9	4 17.3	0.746 6161	9143	15 24.0
4	22 13 42.27	45.58	12 3 27.6	4 19.5	0.747 5304	9010	15 20.9
5	22 14 27.85	45.88	11 59 8.1	4 21.7	0.748 4314	8875	15 17.7
6	22 15 13.73	46.19	−11 54 46.4	4 23.8	0.749 3189	8741	15 14.5
7	22 15 59.92	46.49	11 50 22.6	4 26.0	0.750 1930	8605	15 11.3
8	22 16 46.41	46.78	11 45 56.6	4 28.1	0.751 0535	8469	15 8.2
9	22 17 33.19	47.07	11 41 28.5	4 30.2	0.751 9004	8333	15 5.0
10	22 18 20.26	47.35	11 36 58.3	4 32.3	0.752 7337	8196	15 1.9
11	22 19 7.61	47.63	11 32 26.0	4 34.3	0.753 5533	8057	14 58.8
12	22 19 55.24	47.90	−11 27 51.7	4 36.3	0.754 3590	7918	14 55.6
13	22 20 43.14	48.17	11 23 15.4	4 38.3	0.755 1508	7778	14 52.5
14	22 21 31.31	48.42	11 18 37.1	4 40.2	0.755 9286	7637	14 49.3
15	22 22 19.73	48.68	11 13 56.9	4 42.1	0.756 6923	7496	14 46.2
16	22 23 8.41	48.92	11 9 14.8	4 44.0	0.757 4419	7353	14 43.1
17	22 23 57.33	49.16	11 4 30.8	4 45.9	0.758 1772	7211	14 40.0
18	22 24 46.49	49.39	−10 59 44.9	4 47.6	0.758 8983	7066	14 36.9
19	22 25 35.88	49.62	10 54 57.3	4 49.5	0.759 6049	6922	14 33.8
20	22 26 25.50	49.84	10 50 7.8	4 51.1	0.760 2971	6776	14 30.6
21	22 27 15.34	50.05	10 45 16.7	4 52.9	0.760 9747	6631	14 27.5
22	22 28 5.39	50.26	10 40 23.8	4 54.6	0.761 6378	6485	14 24.4
23	22 28 55.65	50.46	10 35 29.2	4 56.2	0.762 2863	6338	14 21.3
24	22 29 46.11	50.65	−10 30 33.0	4 57.8	0.762 9201	6191	14 18.3
25	22 30 36.76	50.84	10 25 35.2	4 59.4	0.763 5392	6043	14 15.2
26	22 31 27.60	51.02	10 20 35.8	5 0.8	0.764 1435	5895	14 12.1
27	22 32 18.62	51.19	10 15 35.0	5 2.4	0.764 7330	5748	14 9.0
28	22 33 9.81	51.36	10 10 32.6	5 3.8	0.765 3078	5600	14 5.9
29	22 34 1.17	51.52	10 5 28.8	5 5.3	0.765 8678	5452	14 2.8
30	22 34 52.69	51.67	−10 0 23.5	5 6.6	0.766 4130	5303	13 59.8
31	22 35 44.36	51.83	9 55 16.9	5 8.0	0.766 9433	5156	13 56.7
Febr. 1	22 36 36.19	51.96	9 50 8.9	5 9.4	0.767 4589	5007	13 53.6
2	22 37 28.15	52.11	9 44 59.5	5 10.7	0.767 9596	4860	13 50.5
3	22 38 20.26	52.24	9 39 48.8	5 11.9	0.768 4456	4711	13 47.5
4	22 39 12.50	52.36	9 34 36.9	5 13.1	0.768 9167	4564	13 44.4
5	22 40 4.86	52.50	− 9 29 23.8	5 14.4	0.769 3731	4415	13 41.3
6	22 40 57.36	52.61	9 24 9.4	5 15.6	0.769 8146	4267	13 38.3
7	22 41 49.97	52.73	9 18 53.8	5 16.7	0.770 2413	4119	13 35.2
8	22 42 42.70	52.84	9 13 37.1	5 17.8	0.770 6532	3970	13 32.2
9	22 43 35.54	52.95	9 8 19.3	5 18.9	0.771 0502	3821	13 29.1
10	22 44 28.49		− 9 3 0.4		0.771 4323		13 26.1

Tag	0ʰ Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Febr. 10	22 44 28.49	53.05	−9 3 0.4	5 20.0	0.771 4323	3672	13 26.1
11	22 45 21.54	53.15	8 57 40.4	5 21.0	0.771 7995	3522	13 23.0
12	22 46 14.69	53.24	8 52 19.4	5 22.1	0.772 1517	3372	13 20.0
13	22 47 7.93	53.32	8 46 57.3	5 23.0	0.772 4889	3221	13 16.9
14	22 48 1.25	53.41	8 41 34.3	5 23.9	0.772 8110	3070	13 13.9
15	22 48 54.66	53.48	8 36 10.4	5 24.8	0.773 1180	2920	13 10.8
16	22 49 48.14	53.56	−8 30 45.6	5 25.7	0.773 4100	2768	13 7.8
17	22 50 41.70	53.62	8 25 19.9	5 26.5	0.773 6868	2617	13 4.7
18	22 51 35.32	53.68	8 19 53.4	5 27.2	0.773 9485	2466	13 1.7
19	22 52 29.00	53.74	8 14 26.2	5 28.0	0.774 1951	2314	12 58.7
20	22 53 22.74	53.79	8 8 58.2	5 28.7	0.774 4265	2162	12 55.6
21	22 54 16.53	53.83	8 3 29.5	5 29.4	0.774 6427	2010	12 52.6
22	22 55 10.36	53.87	−7 58 0.1	5 30.0	0.774 8437	1859	12 49.5
23	22 56 4.23	53.91	7 52 30.1	5 30.6	0.775 0296	1707	12 46.5
24	22 56 58.14	53.93	7 46 59.5	5 31.1	0.775 2003	1555	12 43.5
25	22 57 52.07	53.96	7 41 28.4	5 31.7	0.775 3558	1404	12 40.4
26	22 58 46.03	53.97	7 35 56.7	5 32.1	0.775 4962	1254	12 37.4
27	22 59 40.00	53.98	7 30 24.6	5 32.5	0.775 6216	1103	12 34.4
28	23 0 33.98	53.99	−7 24 52.1	5 33.0	0.775 7319	952	12 31.3
März 1	23 1 27.97	54.00	7 19 19.1	5 33.4	0.775 8271	802	12 28.3
2	23 2 21.97	53.99	7 13 45.7	5 33.7	0.775 9073	653	12 25.3
3	23 3 15.96	54.00	7 8 12.0	5 34.0	0.775 9726	503	12 22.2
4	23 4 9.96	53.98	7 2 38.0	5 34.4	0.776 0229	355	12 19.2
5	23 5 3.94	53.98	6 57 3.6	5 34.6	0.776 0584	206	12 16.1
6	23 5 57.92	53.96	−6 51 29.0	5 34.8	0.776 0790	57	12 13.1
7	23 6 51.88	53.94	6 45 54.2	5 35.0	0.776 0847	92	12 10.1
8	23 7 45.82	53.91	6 40 19.2	5 35.1	0.776 0755	240	12 7.0
9	23 8 39.73	53.89	6 34 44.1	5 35.3	0.776 0515	389	12 4.0
10	23 9 33.62	53.86	6 29 8.8	5 35.3	0.776 0126	538	12 1.0
11	23 10 27.48	53.83	6 23 33.5	5 35.5	0.775 9588	686	11 57.9
12	23 11 21.31	53.79	−6 17 58.0	5 35.5	0.775 8902	835	11 54.9
13	23 12 15.10	53.74	6 12 22.5	5 35.5	0.775 8067	984	11 51.8
14	23 13 8.84	53.70	6 6 47.0	5 35.4	0.775 7083	1133	11 48.8
15	23 14 2.54	53.65	6 1 11.6	5 35.3	0.775 5950	1283	11 45.8
16	23 14 56.19	53.59	5 55 36.3	5 35.2	0.775 4667	1432	11 42.7
17	23 15 49.78	53.53	5 50 1.1	5 35.0	0.775 3235	1582	11 39.7
18	23 16 43.31	53.46	−5 44 26.1	5 34.9	0.775 1653	1730	11 36.6
19	23 17 36.77	53.40	5 38 51.2	5 34.7	0.774 9923	1879	11 33.6
20	23 18 30.17	53.32	5 33 16.5	5 34.3	0.774 8044	2027	11 30.5
21	23 19 23.49	53.24	5 27 42.2	5 34.1	0.774 6017	2176	11 27.5
22	23 20 16.73	53.15	5 22 8.1	5 33.7	0.774 3841	2324	11 24.4
23	23 21 9.88		−5 16 34.4		0.774 1517		11 21.4

Jupiter 1939

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
März 23	23 21 9.88	53.06	−5 16 34.4	5 33.3	0.774 1517	2472	11 21.4
24	23 22 2.94	52.96	5 11 1.1	5 32.8	0.773 9045	2620	11 18.3
25	23 22 55.90	52.87	5 5 28.3	5 32.4	0.773 6425	2767	11 15.3
26	23 23 48.77	52.76	4 59 55.9	5 31.9	0.773 3658	2913	11 12.2
27	23 24 41.53	52.65	4 54 24.0	5 31.4	0.773 0745	3060	11 9.2
28	23 25 34.18	52.54	4 48 52.6	5 30.8	0.772 7685	3205	11 6.1
29	23 26 26.72	52.42	−4 43 21.8	5 30.2	0.772 4480	3350	11 3.0
30	23 27 19.14	52.30	4 37 51.6	5 29.5	0.772 1130	3495	11 0.0
31	23 28 11.44	52.17	4 32 22.1	5 28.9	0.771 7635	3638	10 56.9
April 1	23 29 3.61	52.04	4 26 53.2	5 28.1	0.771 3997	3781	10 53.8
2	23 29 55.65	51.91	4 21 25.1	5 27.5	0.771 0216	3925	10 50.8
3	23 30 47.56	51.78	4 15 57.6	5 26.6	0.770 6291	4067	10 47.7
4	23 31 39.34	51.64	−4 10 31.0	5 25.9	0.770 2224	4210	10 44.6
5	23 32 30.98	51.50	4 5 5.1	5 25.0	0.769 8014	4352	10 41.6
6	23 33 22.48	51.35	3 59 40.1	5 24.2	0.769 3662	4495	10 38.5
7	23 34 13.83	51.21	3 54 15.9	5 23.2	0.768 9167	4637	10 35.4
8	23 35 5.04	51.05	3 48 52.7	5 22.4	0.768 4530	4779	10 32.3
9	23 35 56.09	50.89	3 43 30.3	5 21.3	0.767 9751	4920	10 29.2
10	23 36 46.98	50.72	−3 38 9.0	5 20.4	0.767 4831	5062	10 26.1
11	23 37 37.70	50.56	3 32 48.6	5 19.3	0.766 9769	5204	10 23.0
12	23 38 28.26	50.39	3 27 29.3	5 18.2	0.766 4565	5345	10 19.9
13	23 39 18.65	50.21	3 22 11.1	5 17.1	0.765 9220	5487	10 16.8
14	23 40 8.86	50.03	3 16 54.0	5 16.0	0.765 3733	5628	10 13.7
15	23 40 58.89	49.85	3 11 38.0	5 14.8	0.764 8105	5768	10 10.6
16	23 41 48.74	49.65	−3 6 23.2	5 13.5	0.764 2337	5909	10 7.5
17	23 42 38.39	49.46	3 1 9.7	5 12.2	0.763 6428	6048	10 4.4
18	23 43 27.85	49.26	2 55 57.5	5 10.9	0.763 0380	6188	10 1.3
19	23 44 17.11	49.05	2 50 46.6	5 9.6	0.762 4192	6327	9 58.2
20	23 45 6.16	48.84	2 45 37.0	5 8.1	0.761 7865	6465	9 55.1
21	23 45 55.00	48.62	2 40 28.9	5 6.7	0.761 1400	6602	9 52.0
22	23 46 43.62	48.40	−2 35 22.2	5 5.2	0.760 4798	6740	9 48.8
23	23 47 32.02	48.18	2 30 17.0	5 3.7	0.759 8058	6875	9 45.7
24	23 48 20.20	47.94	2 25 13.3	5 2.2	0.759 1183	7011	9 42.6
25	23 49 8.14	47.70	2 20 11.1	5 0.5	0.758 4172	7146	9 39.4
26	23 49 55.84	47.46	2 15 10.6	4 59.0	0.757 7026	7280	9 36.3
27	23 50 43.30	47.22	2 10 11.6	4 57.3	0.756 9746	7413	9 33.1
28	23 51 30.52	46.97	−2 5 14.3	4 55.6	0.756 2333	7545	9 30.0
29	23 52 17.49	46.72	2 0 18.7	4 53.9	0.755 4788	7678	9 26.8
30	23 53 4.21	46.46	1 55 24.8	4 52.1	0.754 7110	7808	9 23.7
Mai 1	23 53 50.67	46.19	1 50 32.7	4 50.4	0.753 9302	7938	9 20.5
2	23 54 36.86	45.93	1 45 42.3	4 48.5	0.753 1364	8068	9 17.3
3	23 55 22.79		−1 40 53.8		0.752 3296		9 14.2

Tag	0h Welt-Zeit: Scheinbare Rektaszension		0h Welt-Zeit: Scheinbare Deklination		0h Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Mai 3	23 55 22.79	45.67	−1 40 53.8	4 46.6	0.752 3296	8196	9 14.2
4	23 56 8.46	45.39	1 36 7.2	4 44.8	0.751 5100	8325	9 11.0
5	23 56 53.85	45.11	1 31 22.4	4 42.8	0.750 6775	8454	9 7.8
6	23 57 38.96	44.83	1 26 39.6	4 40.9	0.749 8321	8582	9 4.6
7	23 58 23.79	44.54	1 21 58.7	4 38.9	0.748 9739	8710	9 1.4
8	23 59 8.33	44.26	1 17 19.8	4 36.9	0.748 1029	8837	8 58.2
9	23 59 52.59	43.95	−1 12 42.9	4 34.8	0.747 2192	8963	8 55.0
10	0 0 36.54	43.65	1 8 8.1	4 32.6	0.746 3229	9089	8 51.8
11	0 1 20.19	43.34	1 3 35.5	4 30.5	0.745 4140	9214	8 48.6
12	0 2 3.53	43.02	0 59 5.0	4 28.3	0.744 4926	9338	8 45.4
13	0 2 46.55	42.71	0 54 36.7	4 26.1	0.743 5588	9462	8 42.2
14	0 3 29.26	42.38	0 50 10.6	4 23.8	0.742 6126	9586	8 39.0
15	0 4 11.64	42.05	−0 45 46.8	4 21.4	0.741 6540	9709	8 35.8
16	0 4 53.69	41.71	0 41 25.4	4 19.1	0.740 6831	9831	8 32.5
17	0 5 35.40	41.36	0 37 6.3	4 16.7	0.739 7000	9951	8 29.3
18	0 6 16.76	41.01	0 32 49.6	4 14.2	0.738 7049	1 0070	8 26.0
19	0 6 57.77	40.66	0 28 35.4	4 11.8	0.737 6979	1 0188	8 22.8
20	0 7 38.43	40.30	0 24 23.6	4 9.2	0.736 6791	1 0306	8 19.5
21	0 8 18.73	39.93	−0 20 14.4	4 6.7	0.735 6485	1 0421	8 16.2
22	0 8 58.66	39.55	0 16 7.7	4 4.0	0.734 6064	1 0536	8 13.0
23	0 9 38.21	39.17	0 12 3.7	4 1.4	0.733 5528	1 0649	8 9.7
24	0 10 17.38	38.78	0 8 2.3	3 58.7	0.732 4879	1 0760	8 6.4
25	0 10 56.16	38.39	0 4 3.6	3 56.1	0.731 4119	1 0871	8 3.1
26	0 11 34.55	38.00	−0 0 7.5	3 53.3	0.730 3248	1 0979	7 59.8
27	0 12 12.55	37.60	+0 3 45.8	3 50.5	0.729 2269	1 1087	7 56.5
28	0 12 50.15	37.20	0 7 36.3	3 47.7	0.728 1182	1 1193	7 53.2
29	0 13 27.35	36.78	0 11 24.0	3 44.8	0.726 9989	1 1299	7 49.9
30	0 14 4.13	36.37	0 15 8.8	3 42.0	0.725 8690	1 1402	7 46.6
31	0 14 40.50	35.95	0 18 50.8	3 39.0	0.724 7288	1 1505	7 43.2
Juni 1	0 15 16.45	35.53	0 22 29.8	3 36.1	0.723 5783	1 1607	7 39.9
2	0 15 51.98	35.09	+0 26 5.9	3 33.1	0.722 4176	1 1708	7 36.6
3	0 16 27.07	34.65	0 29 39.0	3 30.1	0.721 2468	1 1807	7 33.2
4	0 17 1.72	34.22	0 33 9.1	3 27.0	0.720 0661	1 1905	7 29.8
5	0 17 35.94	33.77	0 36 36.1	3 23.9	0.718 8756	1 2002	7 26.5
6	0 18 9.71	33.31	0 40 0.0	3 20.8	0.717 6754	1 2097	7 23.1
7	0 18 43.02	32.85	0 43 20.8	3 17.6	0.716 4657	1 2191	7 19.7
8	0 19 15.87	32.38	+0 46 38.4	3 14.4	0.715 2466	1 2284	7 16.3
9	0 19 48.25	31.91	0 49 52.8	3 11.1	0.714 0182	1 2376	7 12.9
10	0 20 20.16	31.42	0 53 3.9	3 7.8	0.712 7806	1 2465	7 9.5
11	0 20 51.58	30.94	0 56 11.7	3 4.4	0.711 5341	1 2554	7 6.1
12	0 21 22.52	30.44	0 59 16.1	3 1.0	0.710 2787	1 2640	7 2.7
13	0 21 52.96		+1 2 17.1		0.709 0147		6 59.2

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Juni 13	0 21 52.96	29.94	+1 2 17.1	2 57.6	0.709 0147	1 2725	6 59.2
14	0 22 22.90	29.43	1 5 14.7	2 54.1	0.707 7422	1 2807	6 55.8
15	0 22 52.33	28.91	1 8 8.8	2 50.6	0.706 4615	1 2888	6 52.4
16	0 23 21.24	28.39	1 10 59.4	2 47.0	0.705 1727	1 2966	6 48.9
17	0 23 49.63	27.86	1 13 46.4	2 43.5	0.703 8761	1 3041	6 45.5
18	0 24 17.49	27.33	1 16 29.9	2 39.8	0.702 5720	1 3114	6 42.0
19	0 24 44.82	26.78	+1 19 9.7	2 36.1	0.701 2606	1 3185	6 38.5
20	0 25 11.60	26.23	1 21 45.8	2 32.4	0.699 9421	1 3252	6 35.0
21	0 25 37.83	25.68	1 24 18.2	2 28.7	0.698 6169	1 3318	6 31.5
22	0 26 3.51	25.11	1 26 46.9	2 24.9	0.697 2851	1 3381	6 28.0
23	0 26 28.62	24.55	1 29 11.8	2 21.1	0.695 9470	1 3441	6 24.5
24	0 26 53.17	23.98	1 31 32.9	2 17.3	0.694 6029	1 3500	6 21.0
25	0 27 17.15	23.40	+1 33 50.2	2 13.5	0.693 2529	1 3555	6 17.4
26	0 27 40.55	22.82	1 36 3.7	2 9.5	0.691 8974	1 3607	6 13.9
27	0 28 3.37	22.24	1 38 13.2	2 5.6	0.690 5367	1 3658	6 10.3
28	0 28 25.61	21.64	1 40 18.8	2 1.6	0.689 1709	1 3705	6 6.7
29	0 28 47.25	21.05	1 42 20.4	1 57.7	0.687 8004	1 3750	6 3.2
30	0 29 8.30	20.45	1 44 18.1	1 53.6	0.686 4254	1 3793	5 59.6
Juli 1	0 29 28.75	19.83	+1 46 11.7	1 49.5	0.685 0461	1 3833	5 56.0
2	0 29 48.58	19.23	1 48 1.2	1 45.5	0.683 6628	1 3871	5 52.4
3	0 30 7.81	18.60	1 49 46.7	1 41.4	0.682 2757	1 3906	5 48.8
4	0 30 26.41	17.98	1 51 28.1	1 37.2	0.680 8851	1 3937	5 45.1
5	0 30 44.39	17.34	1 53 5.3	1 33.1	0.679 4914	1 3967	5 41.5
6	0 31 1.73	16.71	1 54 38.4	1 28.8	0.678 0947	1 3993	5 37.9
7	0 31 18.44	16.07	+1 56 7.2	1 24.6	0.676 6954	1 4015	5 34.2
8	0 31 34.51	15.41	1 57 31.8	1 20.3	0.675 2939	1 4035	5 30.5
9	0 31 49.92	14.76	1 58 52.1	1 16.0	0.673 8904	1 4051	5 26.9
10	0 32 4.68	14.09	2 0 8.1	1 11.6	0.672 4853	1 4063	5 23.2
11	0 32 18.77	13.42	2 1 19.7	1 7.3	0.671 0790	1 4072	5 19.5
12	0 32 32.19	12.75	2 2 27.0	1 2.8	0.669 6718	1 4076	5 15.8
13	0 32 44.94	12.07	+2 3 29.8	0 58.4	0.668 2642	1 4078	5 12.0
14	0 32 57.01	11.39	2 4 28.2	0 54.0	0.666 8564	1 4075	5 8.3
15	0 33 8.40	10.69	2 5 22.2	0 49.4	0.665 4489	1 4067	5 4.6
16	0 33 19.09	10.00	2 6 11.6	0 45.0	0.664 0422	1 4056	5 0.8
17	0 33 29.09	9.30	2 6 56.6	0 40.4	0.662 6366	1 4039	4 57.0
18	0 33 38.39	8.60	2 7 37.0	0 35.9	0.661 2327	1 4019	4 53.2
19	0 33 46.99	7.89	+2 8 12.9	0 31.4	0.659 8308	1 3993	4 49.4
20	0 33 54.88	7.19	2 8 44.3	0 26.8	0.658 4315	1 3963	4 45.6
21	0 34 2.07	6.47	2 9 11.1	0 22.2	0.657 0352	1 3929	4 41.8
22	0 34 8.54	5.76	2 9 33.3	0 17.6	0.655 6423	1 3890	4 38.0
23	0 34 14.30	5.05	2 9 50.9	0 13.1	0.654 2533	1 3847	4 34.2
24	0 34 19.35		+2 10 4.0		0.652 8686		4 30.3

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Juli 24	0 34 19.35	4.33	+2 10 4.0	0 8.5	0.652 8686	1 3798	4 30.3
25	0 34 23.68	3.62	2 10 12.5	0 3.9	0.651 4888	1 3746	4 26.4
26	0 34 27.30	2.89	2 10 16.4	0 0.7	0.650 1142	1 3689	4 22.6
27	0 34 30.19	2.18	2 10 15.7	0 5.3	0.648 7453	1 3627	4 18.7
28	0 34 32.37	1.45	2 10 10.4	0 9.9	0.647 3826	1 3561	4 14.8
29	0 34 33.82	0.74	2 10 0.5	0 14.5	0.646 0265	1 3491	4 10.9
30	0 34 34.56	0.01	+2 9 46.0	0 19.2	0.644 6774	1 3416	4 7.0
31	0 34 34.57	0.72	2 9 26.8	0 23.7	0.643 3358	1 3336	4 3.0
Aug. 1	0 34 33.85	1.44	2 9 3.1	0 28.3	0.642 0022	1 3251	3 59.1
2	0 34 32.41	2.16	2 8 34.8	0 32.9	0.640 6771	1 3161	3 55.1
3	0 34 30.25	2.90	2 8 1.9	0 37.5	0.639 3610	1 3065	3 51.2
4	0 34 27.35	3.62	2 7 24.4	0 42.1	0.638 0545	1 2965	3 47.2
5	0 34 23.73	4.34	+2 6 42.3	0 46.7	0.636 7580	1 2859	3 43.2
6	0 34 19.39	5.08	2 5 55.6	0 51.2	0.635 4721	1 2749	3 39.2
7	0 34 14.31	5.80	2 5 4.4	0 55.8	0.634 1972	1 2633	3 35.2
8	0 34 8.51	6.53	2 4 8.6	1 0.3	0.632 9339	1 2511	3 31.1
9	0 34 1.98	7.24	2 3 8.3	1 4.8	0.631 6828	1 2382	3 27.1
10	0 33 54.74	7.97	2 2 3.5	1 9.3	0.630 4446	1 2250	3 23.0
11	0 33 46.77	8.69	+2 0 54.2	1 13.8	0.629 2196	1 2109	3 19.0
12	0 33 38.08	9.39	1 59 40.4	1 18.2	0.628 0087	1 1964	3 14.9
13	0 33 28.69	10.11	1 58 22.2	1 22.6	0.626 8123	1 1812	3 10.8
14	0 33 18.58	10.81	1 56 59.6	1 27.0	0.625 6311	1 1654	3 6.7
15	0 33 7.77	11.52	1 55 32.6	1 31.2	0.624 4657	1 1489	3 2.6
16	0 32 56.25	12.21	1 54 1.4	1 35.6	0.623 3168	1 1318	2 58.5
17	0 32 44.04	12.90	+1 52 25.8	1 39.7	0.622 1850	1 1143	2 54.3
18	0 32 31.14	13.57	1 50 46.1	1 43.9	0.621 0707	1 0960	2 50.2
19	0 32 17.57	14.24	1 49 2.2	1 48.0	0.619 9747	1 0773	2 46.0
20	0 32 3.33	14.90	1 47 14.2	1 52.0	0.618 8974	1 0579	2 41.9
21	0 31 48.43	15.55	1 45 22.2	1 55.9	0.617 8395	1 0380	2 37.7
22	0 31 32.88	16.19	1 43 26.3	1 59.9	0.616 8015	1 0176	2 33.5
23	0 31 16.69	16.83	+1 41 26.4	2 3.6	0.615 7839	9967	2 29.3
24	0 30 59.86	17.44	1 39 22.8	2 7.4	0.614 7872	9752	2 25.1
25	0 30 42.42	18.06	1 37 15.4	2 11.1	0.613 8120	9533	2 20.9
26	0 30 24.36	18.65	1 35 4.3	2 14.6	0.612 8587	9307	2 16.6
27	0 30 5.71	19.25	1 32 49.7	2 18.2	0.611 9280	9077	2 12.4
28	0 29 46.46	19.82	1 30 31.5	2 21.7	0.611 0203	8842	2 8.1
29	0 29 26.64	20.39	+1 28 9.8	2 25.0	0.610 1361	8601	2 3.9
30	0 29 6.25	20.94	1 25 44.8	2 28.3	0.609 2760	8356	1 59.6
31	0 28 45.31	21.48	1 23 16.5	2 31.5	0.608 4404	8105	1 55.3
Sept. 1	0 28 23.83	22.01	1 20 45.0	2 34.5	0.607 6299	7850	1 51.0
2	0 28 1.82	22.53	1 18 10.5	2 37.6	0.606 8449	7589	1 46.7
3	0 27 39.29		+1 15 32.9		0.606 0860		1 42.4

Tag	Scheinbare Rektaszension (0h Welt-Zeit)		Scheinbare Deklination (0h Welt-Zeit)		log Δ (0h Welt-Zeit)		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Sept. 3	0 27 39.29	23.03	+1 15 32.9	2 40.5	0.606 0860	7324	1 42.4
4	0 27 16.26	23.52	1 12 52.4	2 43.3	0.605 3536	7054	1 38.1
5	0 26 52.74	23.99	1 10 9.1	2 45.9	0.604 6482	6779	1 33.8
6	0 26 28.75	24.45	1 7 23.2	2 48.6	0.603 9703	6499	1 29.5
7	0 26 4.30	24.89	1 4 34.6	2 51.0	0.603 3204	6215	1 25.1
8	0 25 39.41	25.31	1 1 43.6	2 53.4	0.602 6989	5926	1 20.8
9	0 25 14.10	25.72	+0 58 50.2	2 55.7	0.602 1063	5633	1 16.4
10	0 24 48.38	26.11	0 55 54.5	2 57.8	0.601 5430	5335	1 12.1
11	0 24 22.27	26.49	0 52 56.7	2 59.8	0.601 0095	5033	1 7.7
12	0 23 55.78	26.83	0 49 56.9	3 1.6	0.600 5062	4726	1 3.3
13	0 23 28.95	27.16	0 46 55.3	3 3.3	0.600 0336	4417	0 58.9
14	0 23 1.79	27.47	0 43 52.0	3 4.8	0.599 5919	4104	0 54.6
15	0 22 34.32	27.75	+0 40 47.2	3 6.3	0.599 1815	3788	0 50.2
16	0 22 6.57	28.02	0 37 40.9	3 7.6	0.598 8027	3469	0 45.8
17	0 21 38.55	28.26	0 34 33.3	3 8.7	0.598 4558	3147	0 41.4
18	0 21 10.29	28.48	0 31 24.6	3 9.6	0.598 1411	2824	0 37.0
19	0 20 41.81	28.68	0 28 15.0	3 10.5	0.597 8587	2499	0 32.6
20	0 20 13.13	28.86	0 25 4.5	3 11.3	0.597 6088	2173	0 28.2
21	0 19 44.27	29.01	+0 21 53.2	3 11.8	0.597 3915	1845	0 23.8
22	0 19 15.26	29.14	0 18 41.4	3 12.2	0.597 2070	1515	0 19.4
23	0 18 46.12	29.26	0 15 29.2	3 12.5	0.597 0555	1185	0 15.0
24	0 18 16.86	29.35	0 12 16.7	3 12.6	0.596 9370	854	0 10.5
25	0 17 47.51	29.41	0 9 4.1	3 12.6	0.596 8516	522	0 6.1
26	0 17 18.10	29.46	0 5 51.5	3 12.5	0.596 7994	191	{0 1.7 / 23 57.3}
27	0 16 48.64	29.49	+0 2 39.0	3 12.1	0.596 7803	143	23 52.9
28	0 16 19.15	29.49	−0 0 33.1	3 11.7	0.596 7946	475	23 48.4
29	0 15 49.66	29.47	0 3 44.8	3 11.1	0.596 8421	807	23 44.0
30	0 15 20.19	29.44	0 6 55.9	3 10.4	0.596 9228	1140	23 39.6
Okt. 1	0 14 50.75	29.37	0 10 6.3	3 9.5	0.597 0368	1471	23 35.2
2	0 14 21.38	29.28	0 13 15.8	3 8.5	0.597 1839	1803	23 30.8
3	0 13 52.10	29.18	−0 16 24.3	3 7.4	0.597 3642	2133	23 26.3
4	0 13 22.92	29.06	0 19 31.7	3 6.0	0.597 5775	2464	23 21.9
5	0 12 53.86	28.90	0 22 37.7	3 4.6	0.597 8239	2792	23 17.5
6	0 12 24.96	28.74	0 25 42.3	3 3.0	0.598 1031	3120	23 13.1
7	0 11 56.22	28.54	0 28 45.3	3 1.2	0.598 4151	3446	23 8.7
8	0 11 27.68	28.33	0 31 46.5	2 59.4	0.598 7597	3771	23 4.3
9	0 10 59.35	28.09	−0 34 45.9	2 57.4	0.599 1368	4093	22 59.9
10	0 10 31.26	27.83	0 37 43.3	2 55.2	0.599 5461	4413	22 55.5
11	0 10 3.43	27.55	0 40 38.5	2 52.8	0.599 9874	4731	22 51.1
12	0 9 35.88	27.25	0 43 31.3	2 50.5	0.600 4605	5045	22 46.7
13	0 9 8.63	26.92	0 46 21.8	2 47.9	0.600 9650	5357	22 42.4
14	0 8 41.71		−0 49 9.7		0.601 5007		22 38.0

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Okt. 14	0 8 41.71	26.57	−0 49 9.7	2 45.2	0.601 5007	5666	22 38.0
15	0 8 15.14	26.20	0 51 54.9	2 42.4	0.602 0673	5970	22 33.6
16	0 7 48.94	25.81	0 54 37.3	2 39.4	0.602 6643	6270	22 29.3
17	0 7 23.13	25.41	0 57 16.7	2 36.4	0.603 2913	6565	22 24.9
18	0 6 57.72	24.98	0 59 53.1	2 33.1	0.603 9478	6857	22 20.6
19	0 6 32.74	24.53	1 2 26.2	2 29.8	0.604 6335	7143	22 16.2
20	0 6 8.21	24.06	−1 4 56.0	2 26.4	0.605 3478	7425	22 11.9
21	0 5 44.15	23.59	1 7 22.4	2 23.0	0.606 0903	7703	22 7.6
22	0 5 20.56	23.09	1 9 45.4	2 19.3	0.606 8606	7975	22 3.3
23	0 4 57.47	22.58	1 12 4.7	2 15.7	0.607 6581	8242	21 59.0
24	0 4 34.89	22.05	1 14 20.4	2 11.8	0.608 4823	8504	21 54.7
25	0 4 12.84	21.52	1 16 32.2	2 8.0	0.609 3327	8761	21 50.4
26	0 3 51.32	20.96	−1 18 40.2	2 4.0	0.610 2088	9012	21 46.1
27	0 3 30.36	20.40	1 20 44.2	2 0.0	0.611 1100	9259	21 41.8
28	0 3 9.96	19.81	1 22 44.2	1 55.9	0.612 0359	9500	21 37.6
29	0 2 50.15	19.22	1 24 40.1	1 51.7	0.612 9859	9737	21 33.3
30	0 2 30.93	18.62	1 26 31.8	1 47.4	0.613 9596	9968	21 29.1
31	0 2 12.31	18.00	1 28 19.2	1 43.2	0.614 9564	1 0193	21 24.8
Nov. 1	0 1 54.31	17.38	−1 30 2.4	1 38.7	0.615 9757	1 0414	21 20.6
2	0 1 36.93	16.73	1 31 41.1	1 34.3	0.617 0171	1 0629	21 16.4
3	0 1 20.20	16.08	1 33 15.4	1 29.8	0.618 0800	1 0838	21 12.2
4	0 1 4.12	15.42	1 34 45.2	1 25.2	0.619 1638	1 1043	21 8.0
5	0 0 48.70	14.75	1 36 10.4	1 20.6	0.620 2681	1 1241	21 3.8
6	0 0 33.95	14.07	1 37 31.0	1 15.9	0.621 3922	1 1434	20 59.7
7	0 0 19.88	13.38	−1 38 46.9	1 11.2	0.622 5356	1 1621	20 55.5
8	0 0 6.50	12.67	1 39 58.1	1 6.4	0.623 6977	1 1802	20 51.4
9	23 59 53.83	11.97	1 41 4.5	1 1.5	0.624 8779	1 1977	20 47.2
10	23 59 41.86	11.26	1 42 6.0	0 56.6	0.626 0756	1 2146	20 43.1
11	23 59 30.60	10.52	1 43 2.6	0 51.8	0.627 2902	1 2308	20 39.0
12	23 59 20.08	9.80	1 43 54.4	0 46.8	0.628 5210	1 2465	20 34.9
13	23 59 10.28	9.06	−1 44 41.2	0 41.8	0.629 7675	1 2614	20 30.8
14	23 59 1.22	8.31	1 45 23.0	0 36.9	0.631 0289	1 2758	20 26.7
15	23 58 52.91	7.57	1 45 59.9	0 31.8	0.632 3047	1 2894	20 22.7
16	23 58 45.34	6.81	1 46 31.7	0 26.9	0.633 5941	1 3025	20 18.6
17	23 58 38.53	6.06	1 46 58.6	0 21.8	0.634 8966	1 3150	20 14.6
18	23 58 32.47	5.30	1 47 20.4	0 16.7	0.636 2116	1 3268	20 10.6
19	23 58 27.17	4.55	−1 47 37.1	0 11.8	0.637 5384	1 3380	20 6.6
20	23 58 22.62	3.78	1 47 48.9	0 6.7	0.638 8764	1 3487	20 2.6
21	23 58 18.84	3.02	1 47 55.6	0 1.7	0.640 2251	1 3587	19 58.6
22	23 58 15.82	2.26	1 47 57.3	0 3.4	0.641 5838	1 3682	19 54.6
23	23 58 13.56	1.50	1 47 53.9	0 8.4	0.642 9520	1 3771	19 50.7
24	23 58 12.06		−1 47 45.5		0.644 3291		19 46.7

Tag	0h Welt-Zeit: Scheinbare Rektaszension		0h Welt-Zeit: Scheinbare Deklination		0h Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Nov. 24	23 58 12.06	0.74	−1 47 45.5	0 13.5	0.644 3291	1 3856	19 46.7
25	23 58 11.32	0.02	1 47 32.0	0 18.5	0.645 7147	1 3933	19 42.8
26	23 58 11.34	0.79	1 47 13.5	0 23.4	0.647 1080	1 4007	19 38.9
27	23 58 12.13	1.54	1 46 50.1	0 28.4	0.648 5087	1 4075	19 35.0
28	23 58 13.67	2.30	1 46 21.7	0 33.4	0.649 9162	1 4137	19 31.1
29	23 58 15.97	3.05	1 45 48.3	0 38.4	0.651 3299	1 4195	19 27.2
30	23 58 19.02	3.81	−1 45 9.9	0 43.3	0.652 7494	1 4248	19 23.3
Dez. 1	23 58 22.83	4.56	1 44 26.6	0 48.2	0.654 1742	1 4297	19 19.5
2	23 58 27.39	5.31	1 43 38.4	0 53.1	0.655 6039	1 4340	19 15.6
3	23 58 32.70	6.07	1 42 45.3	0 58.0	0.657 0379	1 4379	19 11.8
4	23 58 38.77	6.81	1 41 47.3	1 2.9	0.658 4758	1 4414	19 8.0
5	23 58 45.58	7.56	1 40 44.4	1 7.7	0.659 9172	1 4443	19 4.2
6	23 58 53.14	8.30	−1 39 36.7	1 12.6	0.661 3615	1 4467	19 0.4
7	23 59 1.44	9.05	1 38 24.1	1 17.3	0.662 8082	1 4486	18 56.6
8	23 59 10.49	9.79	1 37 6.8	1 22.1	0.664 2568	1 4501	18 52.8
9	23 59 20.28	10.52	1 35 44.7	1 27.0	0.665 7069	1 4511	18 49.0
10	23 59 30.80	11.25	1 34 17.7	1 31.6	0.667 1580	1 4515	18 45.3
11	23 59 42.05	11.99	1 32 46.1	1 36.3	0.668 6095	1 4516	18 41.6
12	23 59 54.04	12.71	−1 31 9.8	1 40.9	0.670 0611	1 4511	18 37.8
13	0 0 6.75	13.42	1 29 28.9	1 45.6	0.671 5122	1 4502	18 34.1
14	0 0 20.17	14.14	1 27 43.3	1 50.1	0.672 9624	1 4490	18 30.4
15	0 0 34.31	14.85	1 25 53.2	1 54.7	0.674 4114	1 4472	18 26.7
16	0 0 49.16	15.55	1 23 58.5	1 59.1	0.675 8586	1 4451	18 23.0
17	0 1 4.71	16.25	1 21 59.4	2 3.6	0.677 3037	1 4425	18 19.4
18	0 1 20.96	16.93	−1 19 55.8	2 8.0	0.678 7462	1 4395	18 15.7
19	0 1 37.89	17.62	1 17 47.8	2 12.4	0.680 1857	1 4363	18 12.1
20	0 1 55.51	18.29	1 15 35.4	2 16.6	0.681 6220	1 4325	18 8.5
21	0 2 13.80	18.96	1 13 18.8	2 20.9	0.683 0545	1 4284	18 4.8
22	0 2 32.76	19.62	1 10 57.9	2 25.1	0.684 4829	1 4240	18 1.2
23	0 2 52.38	20.28	1 8 32.8	2 29.2	0.685 9069	1 4193	17 57.6
24	0 3 12.66	20.92	−1 6 3.6	2 33.4	0.687 3262	1 4143	17 54.0
25	0 3 33.58	21.57	1 3 30.2	2 37.4	0.688 7405	1 4091	17 50.5
26	0 3 55.15	22.20	1 0 52.8	2 41.4	0.690 1496	1 4034	17 46.9
27	0 4 17.35	22.83	0 58 11.4	2 45.5	0.691 5530	1 3977	17 43.3
28	0 4 40.18	23.45	0 55 25.9	2 49.3	0.692 9507	1 3915	17 39.8
29	0 5 3.63	24.07	0 52 36.6	2 53.3	0.694 3422	1 3851	17 36.3
30	0 5 27.70	24.67	−0 49 43.3	2 57.1	0.695 7273	1 3785	17 32.7
31	0 5 52.37	25.28	0 46 46.2	3 0.9	0.697 1058	1 3715	17 29.2
32	0 6 17.65		−0 43 45.3		0.698 4773		17 25.7

Tag		0h Welt-Zeit						Obere Kulmination in Greenwich
		Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1939		h m s	s	° ′ ″	′ ″			h m
Jan.	0	0 46 5.14	6.28	+2 13 59.1	0 57.1	0.967 7509	7752	18 8.1
	1	0 46 11.42	6.68	2 14 56.2	0 59.5	0.968 5261	7741	18 4.3
	2	0 46 18.10	7.06	2 15 55.7	1 2.0	0.969 3002	7729	18 0.5
	3	0 46 25.16	7.46	2 16 57.7	1 4.3	0.970 0731	7714	17 56.7
	4	0 46 32.62	7.84	2 18 2.0	1 6.7	0.970 8445	7697	17 52.9
	5	0 46 40.46	8.22	2 19 8.7	1 9.1	0.971 6142	7679	17 49.1
	6	0 46 48.68	8.61	+2 20 17.8	1 11.4	0.972 3821	7658	17 45.3
	7	0 46 57.29	8.98	2 21 29.2	1 13.7	0.973 1479	7636	17 41.5
	8	0 47 6.27	9.36	2 22 42.9	1 16.0	0.973 9115	7611	17 37.7
	9	0 47 15.63	9.73	2 23 58.9	1 18.3	0.974 6726	7585	17 34.0
	10	0 47 25.36	10.11	2 25 17.2	1 20.6	0.975 4311	7557	17 30.2
	11	0 47 35.47	10.48	2 26 37.8	1 22.8	0.976 1868	7527	17 26.4
	12	0 47 45.95	10.84	+2 28 0.6	1 25.0	0.976 9395	7494	17 22.7
	13	0 47 56.79	11.21	2 29 25.6	1 27.2	0.977 6889	7460	17 18.9
	14	0 48 8.00	11.57	2 30 52.8	1 29.5	0.978 4349	7425	17 15.2
	15	0 48 19.57	11.94	2 32 22.3	1 31.6	0.979 1774	7386	17 11.5
	16	0 48 31.51	12.29	2 33 53.9	1 33.7	0.979 9160	7346	17 7.7
	17	0 48 43.80	12.64	2 35 27.6	1 35.9	0.980 6506	7304	17 4.0
	18	0 48 56.44	13.00	+2 37 3.5	1 37.9	0.981 3810	7260	17 0.3
	19	0 49 9.44	13.35	2 38 41.4	1 40.0	0.982 1070	7214	16 56.6
	20	0 49 22.79	13.70	2 40 21.4	1 42.0	0.982 8284	7165	16 52.9
	21	0 49 36.49	14.03	2 42 3.4	1 44.0	0.983 5449	7116	16 49.2
	22	0 49 50.52	14.38	2 43 47.4	1 46.0	0.984 2565	7065	16 45.5
	23	0 50 4.90	14.71	2 45 33.4	1 48.0	0.984 9630	7011	16 41.8
	24	0 50 19.61	15.04	+2 47 21.4	1 49.9	0.985 6641	6957	16 38.1
	25	0 50 34.65	15.37	2 49 11.3	1 51.8	0.986 3598	6900	16 34.4
	26	0 50 50.02	15.70	2 51 3.1	1 53.7	0.987 0498	6843	16 30.7
	27	0 51 5.72	16.01	2 52 56.8	1 55.5	0.987 7341	6783	16 27.1
	28	0 51 21.73	16.33	2 54 52.3	1 57.3	0.988 4124	6722	16 23.4
	29	0 51 38.06	16.64	2 56 49.6	1 59.0	0.989 0846	6659	16 19.7
	30	0 51 54.70	16.94	+2 58 48.6	2 0.8	0.989 7505	6596	16 16.1
	31	0 52 11.64	17.25	3 0 49.4	2 2.5	0.990 4101	6531	16 12.5
Febr.	1	0 52 28.89	17.54	3 2 51.9	2 4.2	0.991 0632	6464	16 8.8
	2	0 52 46.43	17.84	3 4 56.1	2 5.9	0.991 7096	6396	16 5.2
	3	0 53 4.27	18.13	3 7 2.0	2 7.4	0.992 3492	6328	16 1.5
	4	0 53 22.40	18.42	3 9 9.4	2 9.1	0.992 9820	6258	15 57.9
	5	0 53 40.82	18.70	+3 11 18.5	2 10.6	0.993 6078	6187	15 54.3
	6	0 53 59.52	18.98	3 13 29.1	2 12.2	0.994 2265	6115	15 50.7
	7	0 54 18.50	19.26	3 15 41.3	2 13.7	0.994 8380	6043	15 47.1
	8	0 54 37.76	19.53	3 17 55.0	2 15.2	0.995 4423	5969	15 43.5
	9	0 54 57.29	19.80	3 20 10.2	2 16.6	0.996 0392	5894	15 39.8
	10	0 55 17.09		+3 22 26.8		0.996 6286		15 36.2

Tag	0h Welt-Zeit: Scheinbare Rektaszension		0h Welt-Zeit: Scheinbare Deklination		0h Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Febr. 10	0 55 17.09	20.06	+3 22 26.8	2 18.1	0.996 6286	5818	15 36.2
11	0 55 37.15	20.33	3 24 44.9	2 19.5	0.997 2104	5740	15 32.6
12	0 55 57.48	20.58	3 27 4.4	2 20.9	0.997 7844	5661	15 29.0
13	0 56 18.06	20.84	3 29 25.3	2 22.2	0.998 3505	5580	15 25.5
14	0 56 38.90	21.09	3 31 47.5	2 23.5	0.998 9085	5500	15 21.9
15	0 56 59.99	21.34	3 34 11.0	2 24.8	0.999 4585	5418	15 18.3
16	0 57 21.33	21.58	+3 36 35.8	2 26.2	1.000 0003	5334	15 14.7
17	0 57 42.91	21.81	3 39 2.0	2 27.3	1.000 5337	5251	15 11.2
18	0 58 4.72	22.05	3 41 29.3	2 28.5	1.001 0588	5166	15 7.6
19	0 58 26.77	22.28	3 43 57.8	2 29.7	1.001 5754	5079	15 4.0
20	0 58 49.05	22.50	3 46 27.5	2 30.8	1.002 0833	4991	15 0.5
21	0 59 11.55	22.72	3 48 58.3	2 31.9	1.002 5824	4904	14 56.9
22	0 59 34.27	22.94	+3 51 30.2	2 33.0	1.003 0728	4814	14 53.4
23	0 59 57.21	23.15	3 54 3.2	2 34.0	1.003 5542	4725	14 49.8
24	1 0 20.36	23.35	3 56 37.2	2 35.1	1.004 0267	4634	14 46.2
25	1 0 43.71	23.56	3 59 12.3	2 36.0	1.004 4901	4543	14 42.7
26	1 1 7.27	23.75	4 1 48.3	2 36.9	1.004 9444	4452	14 39.2
27	1 1 31.02	23.95	4 4 25.2	2 37.8	1.005 3896	4359	14 35.6
28	1 1 54.97	24.13	+4 7 3.0	2 38.8	1.005 8255	4266	14 32.1
März 1	1 2 19.10	24.32	4 9 41.8	2 39.5	1.006 2521	4173	14 28.6
2	1 2 43.42	24.50	4 12 21.3	2 40.4	1.006 6694	4079	14 25.1
3	1 3 7.92	24.67	4 15 1.7	2 41.2	1.007 0773	3984	14 21.5
4	1 3 32.59	24.83	4 17 42.9	2 42.0	1.007 4757	3890	14 18.0
5	1 3 57.42	25.01	4 20 24.9	2 42.7	1.007 8647	3794	14 14.5
6	1 4 22.43	25.17	+4 23 7.6	2 43.3	1.008 2441	3700	14 11.0
7	1 4 47.60	25.33	4 25 50.9	2 44.1	1.008 6141	3603	14 7.5
8	1 5 12.93	25.48	4 28 35.0	2 44.7	1.008 9744	3507	14 3.9
9	1 5 38.41	25.64	4 31 19.7	2 45.3	1.009 3251	3411	14 0.4
10	1 6 4.05	25.78	4 34 5.0	2 45.9	1.009 6662	3313	13 56.9
11	1 6 29.83	25.93	4 36 50.9	2 46.5	1.009 9975	3214	13 53.4
12	1 6 55.76	26.08	+4 39 37.4	2 47.0	1.010 3189	3116	13 49.9
13	1 7 21.84	26.20	4 42 24.4	2 47.6	1.010 6305	3016	13 46.4
14	1 7 48.04	26.34	4 45 12.0	2 48.0	1.010 9321	2917	13 42.9
15	1 8 14.38	26.47	4 48 0.0	2 48.5	1.011 2238	2817	13 39.4
16	1 8 40.85	26.59	4 50 48.5	2 49.0	1.011 5055	2716	13 36.0
17	1 9 7.44	26.71	4 53 37.5	2 49.3	1.011 7771	2615	13 32.5
18	1 9 34.15	26.82	+4 56 26.8	2 49.7	1.012 0386	2514	13 29.0
19	1 10 0.97	26.93	4 59 16.5	2 50.0	1.012 2900	2413	13 25.5
20	1 10 27.90	27.04	5 2 6.5	2 50.4	1.012 5313	2310	13 22.0
21	1 10 54.94	27.14	5 4 56.9	2 50.6	1.012 7623	2208	13 18.5
22	1 11 22.08	27.24	5 7 47.5	2 50.8	1.012 9831	2105	13 15.0
23	1 11 49.32		+5 10 38.3		1.013 1936		13 11.6

Tag	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
	0h Welt-Zeit						
1939	h m s	s	° ′ ″	′ ″			h m
März 23	1 11 49.32	27.33	+5 10 38.3	2 51.1	1.013 1936	2002	13 11.6
24	1 12 16.65	27.42	5 13 29.4	2 51.2	1.013 3938	1899	13 8.1
25	1 12 44.07	27.50	5 16 20.6	2 51.5	1.013 5837	1796	13 4.6
26	1 13 11.57	27.58	5 19 12.1	2 51.5	1.013 7633	1692	13 1.1
27	1 13 39.15	27.66	5 22 3.6	2 51.7	1.013 9325	1589	12 57.7
28	1 14 6.81	27.72	5 24 55.3	2 51.8	1.014 0914	1485	12 54.2
29	1 14 34.53	27.79	+5 27 47.1	2 51.8	1.014 2399	1381	12 50.7
30	1 15 2.32	27.85	5 30 38.9	2 51.8	1.014 3780	1279	12 47.2
31	1 15 30.17	27.91	5 33 30.7	2 51.8	1.014 5059	1175	12 43.8
April 1	1 15 58.08	27.97	5 36 22.5	2 51.8	1.014 6234	1071	12 40.3
2	1 16 26.05	28.01	5 39 14.3	2 51.7	1.014 7305	968	12 36.8
3	1 16 54.06	28.05	5 42 6.0	2 51.6	1.014 8273	866	12 33.4
4	1 17 22.11	28.10	+5 44 57.6	2 51.6	1.014 9139	763	12 29.9
5	1 17 50.21	28.14	5 47 49.2	2 51.4	1.014 9902	659	12 26.4
6	1 18 18.35	28.17	5 50 40.6	2 51.3	1.015 0561	557	12 23.0
7	1 18 46.52	28.21	5 53 31.9	2 51.0	1.015 1118	453	12 19.5
8	1 19 14.73	28.23	5 56 22.9	2 50.9	1.015 1571	349	12 16.0
9	1 19 42.96	28.26	5 59 13.8	2 50.7	1.015 1920	245	12 12.6
10	1 20 11.22	28.27	+6 2 4.5	2 50.4	1.015 2165	142	12 9.1
11	1 20 39.49	28.30	6 4 54.9	2 50.1	1.015 2307	38	12 5.7
12	1 21 7.79	28.31	6 7 45.0	2 49.9	1.015 2345	65	12 2.2
13	1 21 36.10	28.31	6 10 34.9	2 49.5	1.015 2280	169	11 58.7
14	1 22 4.41	28.32	6 13 24.4	2 49.2	1.015 2111	272	11 55.3
15	1 22 32.73	28.32	6 16 13.6	2 48.8	1.015 1839	376	11 51.8
16	1 23 1.05	28.32	+6 19 2.4	2 48.3	1.015 1463	480	11 48.3
17	1 23 29.37	28.30	6 21 50.7	2 48.0	1.015 0983	584	11 44.9
18	1 23 57.67	28.29	6 24 38.7	2 47.5	1.015 0399	688	11 41.4
19	1 24 25.96	28.27	6 27 26.2	2 47.0	1.014 9711	791	11 38.0
20	1 24 54.23	28.25	6 30 13.2	2 46.5	1.014 8920	895	11 34.5
21	1 25 22.48	28.23	6 32 59.7	2 45.9	1.014 8025	998	11 31.0
22	1 25 50.71	28.19	+6 35 45.6	2 45.4	1.014 7027	1100	11 27.6
23	1 26 18.90	28.16	6 38 31.0	2 44.8	1.014 5927	1203	11 24.1
24	1 26 47.06	28.11	6 41 15.8	2 44.2	1.014 4724	1305	11 20.6
25	1 27 15.17	28.08	6 44 0.0	2 43.6	1.014 3419	1407	11 17.2
26	1 27 43.25	28.02	6 46 43.6	2 42.9	1.014 2012	1508	11 13.7
27	1 28 11.27	27.97	6 49 26.5	2 42.2	1.014 0504	1610	11 10.2
28	1 28 39.24	27.92	+6 52 8.7	2 41.6	1.013 8894	1710	11 6.8
29	1 29 7.16	27.86	6 54 50.3	2 40.8	1.013 7184	1810	11 3.3
30	1 29 35.02	27.79	6 57 31.1	2 40.1	1.013 5374	1910	10 59.8
Mai 1	1 30 2.81	27.73	7 0 11.2	2 39.3	1.013 3464	2009	10 56.4
2	1 30 30.54	27.66	7 2 50.5	2 38.6	1.013 1455	2108	10 52.9
3	1 30 58.20		+7 5 29.1		1.012 9347		10 49.4

Tag	0ʰ Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Mai 3	1 30 58.20	27.58	+7 5 29.1	2 37.7	1.012 9347	2207	10 49.4
4	1 31 25.78	27.51	7 8 6.8	2 36.9	1.012 7140	2305	10 45.9
5	1 31 53.29	27.42	7 10 43.7	2 36.0	1.012 4835	2403	10 42.5
6	1 32 20.71	27.34	7 13 19.7	2 35.2	1.012 2432	2501	10 39.0
7	1 32 48.05	27.25	7 15 54.9	2 34.2	1.011 9931	2599	10 35.5
8	1 33 15.30	27.16	7 18 29.1	2 33.4	1.011 7332	2696	10 32.0
9	1 33 42.46	27.07	+7 21 2.5	2 32.4	1.011 4636	2793	10 28.5
10	1 34 9.53	26.96	7 23 34.9	2 31.5	1.011 1843	2890	10 25.1
11	1 34 36.49	26.86	7 26 6.4	2 30.6	1.010 8953	2987	10 21.6
12	1 35 3.35	26.75	7 28 37.0	2 29.6	1.010 5966	3083	10 18.1
13	1 35 30.10	26.64	7 31 6.6	2 28.5	1.010 2883	3178	10 14.6
14	1 35 56.74	26.52	7 33 35.1	2 27.5	1.009 9705	3273	10 11.1
15	1 36 23.26	26.40	+7 36 2.6	2 26.4	1.009 6432	3368	10 7.6
16	1 36 49.66	26.27	7 38 29.0	2 25.3	1.009 3064	3462	10 4.1
17	1 37 15.93	26.15	7 40 54.3	2 24.2	1.008 9602	3557	10 0.6
18	1 37 42.08	26.01	7 43 18.5	2 23.1	1.008 6045	3650	9 57.1
19	1 38 8.09	25.87	7 45 41.6	2 21.9	1.008 2395	3743	9 53.6
20	1 38 33.96	25.73	7 48 3.5	2 20.8	1.007 8652	3836	9 50.1
21	1 38 59.69	25.58	+7 50 24.3	2 19.6	1.007 4816	3928	9 46.6
22	1 39 25.27	25.44	7 52 43.9	2 18.3	1.007 0888	4018	9 43.1
23	1 39 50.71	25.28	7 55 2.2	2 17.1	1.006 6870	4109	9 39.6
24	1 40 15.99	25.11	7 57 19.3	2 15.8	1.006 2761	4197	9 36.1
25	1 40 41.10	24.96	7 59 35.1	2 14.6	1.005 8564	4285	9 32.6
26	1 41 6.06	24.78	8 1 49.7	2 13.3	1.005 4279	4373	9 29.0
27	1 41 30.84	24.61	+8 4 3.0	2 12.0	1.004 9906	4460	9 25.5
28	1 41 55.45	24.44	8 6 15.0	2 10.6	1.004 5446	4546	9 22.0
29	1 42 19.89	24.26	8 8 25.6	2 9.3	1.004 0900	4631	9 18.5
30	1 42 44.15	24.08	8 10 34.9	2 8.0	1.003 6269	4715	9 14.9
31	1 43 8.23	23.89	8 12 42.9	2 6.6	1.003 1554	4799	9 11.4
Juni 1	1 43 32.12	23.71	8 14 49.5	2 5.2	1.002 6755	4883	9 7.9
2	1 43 55.83	23.52	+8 16 54.7	2 3.8	1.002 1872	4965	9 4.3
3	1 44 19.35	23.32	8 18 58.5	2 2.4	1.001 6907	5047	9 0.8
4	1 44 42.67	23.12	8 21 0.9	2 0.9	1.001 1860	5127	8 57.2
5	1 45 5.79	22.91	8 23 1.8	1 59.4	1.000 6733	5209	8 53.7
6	1 45 28.70	22.71	8 25 1.2	1 57.9	1.000 1524	5288	8 50.1
7	1 45 51.41	22.50	8 26 59.1	1 56.4	0.999 6236	5368	8 46.6
8	1 46 13.91	22.29	+8 28 55.5	1 55.0	0.999 0868	5446	8 43.0
9	1 46 36.20	22.06	8 30 50.5	1 53.4	0.998 5422	5524	8 39.5
10	1 46 58.26	21.84	8 32 43.9	1 51.8	0.997 9898	5601	8 35.9
11	1 47 20.10	21.62	8 34 35.7	1 50.3	0.997 4297	5677	8 32.3
12	1 47 41.72	21.38	8 36 26.0	1 48.7	0.996 8620	5753	8 28.7
13	1 48 3.10		+8 38 14.7		0.996 2867		8 25.2

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Juni 13	1 48 3.10	21.15	+8 38 14.7	1 47.1	0.996 2867	5827	8 25.2
14	1 48 24.25	20.91	8 40 1.8	1 45.4	0.995 7040	5900	8 21.6
15	1 48 45.16	20.66	8 41 47.2	1 43.8	0.995 1140	5972	8 18.0
16	1 49 5.82	20.42	8 43 31.0	1 42.1	0.994 5168	6044	8 14.4
17	1 49 26.24	20.16	8 45 13.1	1 40.4	0.993 9124	6114	8 10.8
18	1 49 46.40	19.91	8 46 53.5	1 38.8	0.993 3010	6182	8 7.2
19	1 50 6.31	19.64	+8 48 32.3	1 37.0	0.992 6828	6250	8 3.6
20	1 50 25.95	19.37	8 50 9.3	1 35.4	0.992 0578	6317	8 0.0
21	1 50 45.32	19.11	8 51 44.7	1 33.6	0.991 4261	6381	7 56.4
22	1 51 4.43	18.84	8 53 18.3	1 31.8	0.990 7880	6445	7 52.8
23	1 51 23.27	18.56	8 54 50.1	1 30.1	0.990 1435	6507	7 49.1
24	1 51 41.83	18.27	8 56 20.2	1 28.3	0.989 4928	6569	7 45.5
25	1 52 0.10	18.00	+8 57 48.5	1 26.4	0.988 8359	6629	7 41.9
26	1 52 18.10	17.71	8 59 14.9	1 24.7	0.988 1730	6687	7 38.3
27	1 52 35.81	17.43	9 0 39.6	1 22.8	0.987 5043	6744	7 34.6
28	1 52 53.24	17.13	9 2 2.4	1 20.9	0.986 8299	6801	7 31.0
29	1 53 10.37	16.83	9 3 23.3	1 19.1	0.986 1498	6856	7 27.3
30	1 53 27.20	16.54	9 4 42.4	1 17.3	0.985 4642	6909	7 23.7
Juli 1	1 53 43.74	16.24	+9 5 59.7	1 15.4	0.984 7733	6961	7 20.0
2	1 53 59.98	15.93	9 7 15.1	1 13.5	0.984 0772	7013	7 16.4
3	1 54 15.91	15.63	9 8 28.6	1 11.6	0.983 3759	7063	7 12.7
4	1 54 31.54	15.31	9 9 40.2	1 9.8	0.982 6696	7112	7 9.0
5	1 54 46.85	15.00	9 10 50.0	1 7.8	0.981 9584	7160	7 5.3
6	1 55 1.85	14.68	9 11 57.8	1 5.8	0.981 2424	7206	7 1.6
7	1 55 16.53	14.36	+9 13 3.6	1 3.9	0.980 5218	7251	6 57.9
8	1 55 30.89	14.04	9 14 7.5	1 1.9	0.979 7967	7295	6 54.2
9	1 55 44.93	13.70	9 15 9.4	0 59.9	0.979 0672	7336	6 50.5
10	1 55 58.63	13.37	9 16 9.3	0 58.0	0.978 3336	7377	6 46.8
11	1 56 12.00	13.04	9 17 7.3	0 55.9	0.977 5959	7416	6 43.1
12	1 56 25.04	12.69	9 18 3.2	0 54.0	0.976 8543	7452	6 39.4
13	1 56 37.73	12.35	+9 18 57.2	0 51.9	0.976 1091	7488	6 35.7
14	1 56 50.08	12.00	9 19 49.1	0 49.9	0.975 3603	7522	6 32.0
15	1 57 2.08	11.65	9 20 39.0	0 47.9	0.974 6081	7554	6 28.2
16	1 57 13.73	11.30	9 21 26.9	0 45.8	0.973 8527	7584	6 24.5
17	1 57 25.03	10.95	9 22 12.7	0 43.7	0.973 0943	7613	6 20.7
18	1 57 35.98	10.58	9 22 56.4	0 41.6	0.972 3330	7639	6 17.0
19	1 57 46.56	10.22	+9 23 38.0	0 39.5	0.971 5691	7664	6 13.2
20	1 57 56.78	9.85	9 24 17.5	0 37.5	0.970 8027	7686	6 9.5
21	1 58 6.63	9.49	9 24 55.0	0 35.3	0.970 0341	7706	6 5.7
22	1 58 16.12	9.12	9 25 30.3	0 33.2	0.969 2635	7724	6 1.9
23	1 58 25.24	8.74	9 26 3.5	0 31.1	0.968 4911	7741	5 58.1
24	1 58 33.98		+9 26 34.6		0.967 7170		5 54.3

Saturn 1939

Tag	0ʰ Welt-Zeit Scheinbare Rektaszension		0ʰ Welt-Zeit Scheinbare Deklination		0ʰ Welt-Zeit log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	″			h m
Juli 24	1 58 33.98	8.38	+9 26 34.6	29.1	0.967 7170	7755	5 54.3
25	1 58 42.36	8.00	9 27 3.7	26.9	0.966 9415	7767	5 50.6
26	1 58 50.36	7.63	9 27 30.6	24.8	0.966 1648	7779	5 46.8
27	1 58 57.99	7.25	9 27 55.4	22.7	0.965 3869	7788	5 42.9
28	1 59 5.24	6.88	9 28 18.1	20.6	0.964 6081	7794	5 39.1
29	1 59 12.12	6.49	9 28 38.7	18.5	0.963 8287	7799	5 35.3
30	1 59 18.61	6.10	+9 28 57.2	16.3	0.963 0488	7802	5 31.5
31	1 59 24.71	5.72	9 29 13.5	14.2	0.962 2686	7803	5 27.7
Aug. 1	1 59 30.43	5.34	9 29 27.7	12.0	0.961 4883	7803	5 23.8
2	1 59 35.77	4.95	9 29 39.7	9.9	0.960 7080	7799	5 20.0
3	1 59 40.72	4.55	9 29 49.6	7.7	0.959 9281	7795	5 16.1
4	1 59 45.27	4.17	9 29 57.3	5.6	0.959 1486	7788	5 12.3
5	1 59 49.44	3.78	+9 30 2.9	3.4	0.958 3698	7778	5 8.4
6	1 59 53.22	3.38	9 30 6.3	1.3	0.957 5920	7767	5 4.5
7	1 59 56.60	2.98	9 30 7.6	$\overline{0.9}$	0.956 8153	7753	5 0.7
8	1 59 59.58	2.59	9 30 6.7	3.0	0.956 0400	7738	4 56.8
9	2 0 2.17	2.19	9 30 3.7	5.1	0.955 2662	7719	4 52.9
10	2 0 4.36	1.78	9 29 58.6	7.3	0.954 4943	7699	4 49.0
11	2 0 6.14	1.39	+9 29 51.3	9.5	0.953 7244	7675	4 45.
12	2 0 7.53	0.99	9 29 41.8	11.6	0.952 9569	7650	4 41.2
13	2 0 8.52	0.59	9 29 30.2	13.7	0.952 1919	7622	4 37.2
14	2 0 9.11	0.18	9 29 16.5	15.9	0.951 4297	7592	4 33.3
15	2 0 9.29	$\overline{0.22}$	9 29 0.6	18.0	0.950 6705	7558	4 29.4
16	2 0 9.07	0.62	9 28 42.6	20.1	0.949 9147	7523	4 25.5
17	2 0 8.45	1.02	+9 28 22.5	22.2	0.949 1624	7484	4 21.5
18	2 0 7.43	1.42	9 28 0.3	24.3	0.948 4140	7443	4 17.6
19	2 0 6.01	1.82	9 27 36.0	26.5	0.947 6697	7398	4 13.6
20	2 0 4.19	2.22	9 27 9.5	28.5	0.946 9299	7352	4 9.7
21	2 0 1.97	2.62	9 26 41.0	30.5	0.946 1947	7303	4 5.7
22	1 59 59.35	3.01	9 26 10.5	32.7	0.945 4644	7252	4 1.7
23	1 59 56.34	3.40	+9 25 37.8	34.6	0.944 7392	7198	3 57.7
24	1 59 52.94	3.79	9 25 3.2	36.7	0.944 0194	7142	3 53.7
25	1 59 49.15	4.18	9 24 26.5	38.7	0.943 3052	7084	3 49.7
26	1 59 44.97	4.57	9 23 47.8	40.7	0.942 5968	7023	3 45.7
27	1 59 40.40	4.95	9 23 7.1	42.7	0.941 8945	6959	3 41.7
28	1 59 35.45	5.34	9 22 24.4	44.6	0.941 1986	6893	3 37.7
29	1 59 30.11	5.71	+9 21 39.8	46.6	0.940 5093	6826	3 33.7
30	1 59 24.40	6.09	9 20 53.2	48.5	0.939 8267	6754	3 29.7
31	1 59 18.31	6.48	9 20 4.7	50.5	0.939 1513	6682	3 25.6
Sept. 1	1 59 11.83	6.85	9 19 14.2	52.3	0.938 4831	6606	3 21.6
2	1 59 4.98	7.21	9 18 21.9	54.2	0.937 8225	6529	3 17.6
3	1 58 57.77		+9 17 27.7		0.937 1696		3 13.5

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Sept. 3	1 58 57.77	7.59	+9 17 27.7	0 56.1	0.937 1696	6448	3 13.5
4	1 58 50.18	7.95	9 16 31.6	0 57.9	0.936 5248	6365	3 9.4
5	1 58 42.23	8.32	9 15 33.7	0 59.7	0.935 8883	6280	3 5.4
6	1 58 33.91	8.67	9 14 34.0	1 1.4	0.935 2603	6191	3 1.3
7	1 58 25.24	9.03	9 13 32.6	1 3.3	0.934 6412	6101	2 57.2
8	1 58 16.21	9.38	9 12 29.3	1 5.0	0.934 0311	6007	2 53.1
9	1 58 6.83	9.74	+9 11 24.3	1 6.7	0.933 4304	5911	2 49.0
10	1 57 57.09	10.07	9 10 17.6	1 8.4	0.932 8393	5812	2 45.0
11	1 57 47.02	10.42	9 9 9.2	1 10.1	0.932 2581	5711	2 40.9
12	1 57 36.60	10.75	9 7 59.1	1 11.7	0.931 6870	5607	2 36.8
13	1 57 25.85	11.09	9 6 47.4	1 13.3	0.931 1263	5501	2 32.6
14	1 57 14.76	11.40	9 5 34.1	1 14.9	0.930 5762	5391	2 28.5
15	1 57 3.36	11.72	+9 4 19.2	1 16.4	0.930 0371	5279	2 24.4
16	1 56 51.64	12.03	9 3 2.8	1 17.8	0.929 5092	5164	2 20.3
17	1 56 39.61	12.34	9 1 45.0	1 19.3	0.928 9928	5047	2 16.1
18	1 56 27.27	12.63	9 0 25.7	1 20.7	0.928 4881	4929	2 12.0
19	1 56 14.64	12.93	8 59 5.0	1 22.1	0.927 9952	4808	2 7.9
20	1 56 1.71	13.21	8 57 42.9	1 23.4	0.927 5144	4686	2 3.7
21	1 55 48.50	13.50	+8 56 19.5	1 24.8	0.927 0458	4562	1 59.6
22	1 55 35.00	13.76	8 54 54.7	1 26.0	0.926 5896	4435	1 55.4
23	1 55 21.24	14.03	8 53 28.7	1 27.1	0.926 1461	4306	1 51.2
24	1 55 7.21	14.28	8 52 1.6	1 28.4	0.925 7155	4176	1 47.1
25	1 54 52.93	14.53	8 50 33.2	1 29.4	0.925 2979	4043	1 42.9
26	1 54 38.40	14.77	8 49 3.8	1 30.5	0.924 8936	3909	1 38.7
27	1 54 23.63	15.01	+8 47 33.3	1 31.6	0.924 5027	3772	1 34.6
28	1 54 8.62	15.24	8 46 1.7	1 32.6	0.924 1255	3635	1 30.4
29	1 53 53.38	15.45	8 44 29.1	1 33.5	0.923 7620	3495	1 26.2
30	1 53 37.93	15.67	8 42 55.6	1 34.4	0.923 4125	3354	1 22.0
Okt. 1	1 53 22.26	15.87	8 41 21.2	1 35.3	0.923 0771	3212	1 17.8
2	1 53 6.39	16.08	8 39 45.9	1 36.1	0.922 7559	3067	1 13.6
3	1 52 50.31	16.26	+8 38 9.8	1 36.9	0.922 4492	2922	1 9.4
4	1 52 34.05	16.44	8 36 32.9	1 37.6	0.922 1570	2774	1 5.2
5	1 52 17.61	16.62	8 34 55.3	1 38.3	0.921 8796	2625	1 1.0
6	1 52 0.99	16.78	8 33 17.0	1 38.9	0.921 6171	2474	0 56.8
7	1 51 44.21	16.94	8 31 38.1	1 39.4	0.921 3697	2323	0 52.6
8	1 51 27.27	17.08	8 29 58.7	1 40.0	0.921 1374	2169	0 48.4
9	1 51 10.19	17.22	+8 28 18.7	1 40.4	0.920 9205	2014	0 44.2
10	1 50 52.97	17.35	8 26 38.3	1 40.8	0.920 7191	1857	0 40.0
11	1 50 35.62	17.47	8 24 57.5	1 41.2	0.920 5334	1701	0 35.7
12	1 50 18.15	17.58	8 23 16.3	1 41.5	0.920 3633	1542	0 31.5
13	1 50 0.57	17.67	8 21 34.8	1 41.7	0.920 2091	1382	0 27.3
14	1 49 42.90		+8 19 53.1		0.920 0709		0 23.1

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Okt. 14	1 49 42.90	17.76	+8 19 53.1	1 41.8	0.920 0709	1223	0 23.1
15	1 49 25.14	17.83	8 18 11.3	1 42.0	0.919 9486	1062	0 18.9
16	1 49 7.31	17.90	8 16 29.3	1 42.1	0.919 8424	901	0 14.6
17	1 48 49.41	17.95	8 14 47.2	1 42.0	0.919 7523	739	0 10.4
18	1 48 31.46	18.00	8 13 5.2	1 42.0	0.919 6784	577	0 6.2
19	1 48 13.46	18.04	8 11 23.2	1 41.9	0.919 6207	414	{0 1.9 / 23 57.7}
20	1 47 55.42	18.06	+8 9 41.3	1 41.6	0.919 5793	252	23 53.5
21	1 47 37.36	18.08	8 7 59.7	1 41.5	0.919 5541	89	23 49.2
22	1 47 19.28	18.08	8 6 18.2	1 41.1	0.919 5452	73	23 45.0
23	1 47 1.20	18.08	8 4 37.1	1 40.9	0.919 5525	235	23 40.8
24	1 46 43.12	18.06	8 2 56.2	1 40.4	0.919 5760	397	23 36.6
25	1 46 25.06	18.03	8 1 15.8	1 39.9	0.919 6157	558	23 32.3
26	1 46 7.03	18.00	+7 59 35.9	1 39.4	0.919 6715	719	23 28.1
27	1 45 49.03	17.96	7 57 56.5	1 38.9	0.919 7434	880	23 23.9
28	1 45 31.07	17.91	7 56 17.6	1 38.3	0.919 8314	1042	23 19.6
29	1 45 13.16	17.85	7 54 39.3	1 37.6	0.919 9356	1203	23 15.4
30	1 44 55.31	17.77	7 53 1.7	1 36.9	0.920 0559	1363	23 11.2
31	1 44 37.54	17.70	7 51 24.8	1 36.2	0.920 1922	1523	23 6.9
Nov. 1	1 44 19.84	17.61	+7 49 48.6	1 35.3	0.920 3445	1682	23 2.7
2	1 44 2.23	17.50	7 48 13.3	1 34.4	0.920 5127	1839	22 58.5
3	1 43 44.73	17.39	7 46 38.9	1 33.4	0.920 6966	1997	22 54.3
4	1 43 27.34	17.28	7 45 5.5	1 32.4	0.920 8963	2154	22 50.1
5	1 43 10.06	17.14	7 43 33.1	1 31.4	0.921 1117	2310	22 45.8
6	1 42 52.92	17.00	7 42 1.7	1 30.3	0.921 3427	2465	22 41.6
7	1 42 35.92	16.86	+7 40 31.4	1 29.2	0.921 5892	2620	22 37.4
8	1 42 19.06	16.70	7 39 2.2	1 27.9	0.921 8512	2773	22 33.2
9	1 42 2.36	16.53	7 37 34.3	1 26.7	0.922 1285	2926	22 29.0
10	1 41 45.83	16.35	7 36 7.6	1 25.3	0.922 4211	3076	22 24.8
11	1 41 29.48	16.17	7 34 42.3	1 23.9	0.922 7287	3225	22 20.6
12	1 41 13.31	15.96	7 33 18.4	1 22.5	0.923 0512	3373	22 16.4
13	1 40 57.35	15.76	+7 31 55.9	1 21.0	0.923 3885	3518	22 12.2
14	1 40 41.59	15.54	7 30 34.9	1 19.6	0.923 7403	3662	22 8.0
15	1 40 26.05	15.32	7 29 15.3	1 17.9	0.924 1065	3804	22 3.8
16	1 40 10.73	15.09	7 27 57.4	1 16.4	0.924 4869	3944	21 59.7
17	1 39 55.64	14.84	7 26 41.0	1 14.7	0.924 8813	4082	21 55.5
18	1 39 40.80	14.60	7 25 26.3	1 13.0	0.925 2895	4218	21 51.3
19	1 39 26.20	14.34	+7 24 13.3	1 11.2	0.925 7113	4352	21 47.1
20	1 39 11.86	14.08	7 23 2.1	1 9.4	0.926 1465	4483	21 43.0
21	1 38 57.78	13.80	7 21 52.7	1 7.7	0.926 5948	4613	21 38.8
22	1 38 43.98	13.53	7 20 45.0	1 5.8	0.927 0561	4741	21 34.6
23	1 38 30.45	13.24	7 19 39.2	1 3.8	0.927 5302	4867	21 30.5
24	1 38 17.21		+7 18 35.4		0.928 0169		21 26.4

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	″			h m
Nov. 24	1 38 17.21	12.94	+7 18 35.4	62.0	0.928 0169	4989	21 26.4
25	1 38 4.27	12.66	7 17 33.4	60.0	0.928 5158	5110	21 22.2
26	1 37 51.61	12.35	7 16 33.4	58.0	0.929 0268	5228	21 18.1
27	1 37 39.26	12.04	7 15 35.4	55.9	0.929 5496	5344	21 14.0
28	1 37 27.22	11.72	7 14 39.5	53.9	0.930 0840	5457	21 9.8
29	1 37 15.50	11.41	7 13 45.6	51.8	0.930 6297	5569	21 5.7
30	1 37 4.09	11.08	+7 12 53.8	49.7	0.931 1866	5677	21 1.6
Dez. 1	1 36 53.01	10.74	7 12 4.1	47.5	0.931 7543	5785	20 57.5
2	1 36 42.27	10.41	7 11 16.6	45.4	0.932 3328	5890	20 53.4
3	1 36 31.86	10.06	7 10 31.2	43.2	0.932 9218	5992	20 49.3
4	1 36 21.80	9.71	7 9 48.0	40.9	0.933 5210	6092	20 45.2
5	1 36 12.09	9.36	7 9 7.1	38.7	0.934 1302	6190	20 41.1
6	1 36 2.73	9.00	+7 8 28.4	36.4	0.934 7492	6285	20 37.0
7	1 35 53.73	8.63	7 7 52.0	34.1	0.935 3777	6377	20 32.9
8	1 35 45.10	8.26	7 7 17.9	31.8	0.936 0154	6466	20 28.9
9	1 35 36.84	7.89	7 6 46.1	29.4	0.936 6620	6554	20 24.8
10	1 35 28.95	7.51	7 6 16.7	27.1	0.937 3174	6637	20 20.7
11	1 35 21.44	7.12	7 5 49.6	24.7	0.937 9811	6717	20 16.7
12	1 35 14.32	6.74	+7 5 24.9	22.2	0.938 6528	6795	20 12.6
13	1 35 7.58	6.35	7 5 2.7	19.8	0.939 3323	6869	20 8.6
14	1 35 1.23	5.95	7 4 42.9	17.4	0.940 0192	6941	20 4.6
15	1 34 55.28	5.55	7 4 25.5	15.0	0.940 7133	7010	20 0.5
16	1 34 49.73	5.16	7 4 10.5	12.5	0.941 4143	7078	19 56.5
17	1 34 44.57	4.75	7 3 58.0	10.0	0.942 1221	7142	19 52.5
18	1 34 39.82	4.35	+7 3 48.0	7.6	0.942 8363	7203	19 48.5
19	1 34 35.47	3.94	7 3 40.4	5.2	0.943 5566	7261	19 44.5
20	1 34 31.53	3.53	7 3 35.2	2.6	0.944 2827	7315	19 40.5
21	1 34 28.00	3.13	7 3 32.6	0.1	0.945 0142	7367	19 36.5
22	1 34 24.87	2.71	7 3 32.5	2.3	0.945 7509	7416	19 32.6
23	1 34 22.16	2.31	7 3 34.8	4.8	0.946 4925	7462	19 28.6
24	1 34 19.85	1.90	+7 3 39.6	7.2	0.947 2387	7505	19 24.6
25	1 34 17.95	1.48	7 3 46.8	9.8	0.947 9892	7546	19 20.7
26	1 34 16.47	1.07	7 3 56.6	12.2	0.948 7438	7585	19 16.7
27	1 34 15.40	0.66	7 4 8.8	14.6	0.949 5023	7622	19 12.8
28	1 34 14.74	0.24	7 4 23.4	17.2	0.950 2645	7655	19 8.8
29	1 34 14.50	0.18	7 4 40.6	19.6	0.951 0300	7686	19 4.9
30	1 34 14.68	0.59	+7 5 0.2	22.0	0.951 7986	7715	19 1.0
31	1 34 15.27	1.00	7 5 22.2	24.5	0.952 5701	7741	18 57.1
32	1 34 16.27		+7 5 46.7		0.953 3442		18 53.2

Uranus 1939

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Jan. −3	2 47 3.17	18.85	+15 43 34.9	1 18.6	1.279 6659	1 2558	20 20.4
+1	46 44.32	15.87	42 16.3	1 5.1	280 9217	1 3148	20 4.4
5	46 28.45	12.79	41 11.2	0 51.1	282 2365	1 3662	19 48.4
9	46 15.66	9.61	40 20.1	0 36.9	283 6027	1 4106	19 32.5
13	46 6.05	6.38	39 43.2	0 22.0	285 0133	1 4475	19 16.6
17	2 45 59.67	3.06	+15 39 21.2	0 7.0	1.286 4608	1 4768	19 0.8
21	45 56.61	$\overline{0.30}$	39 14.2	$\overline{0\ 8.0}$	287 9376	1 4972	18 45.0
25	45 56.91	3.66	39 22.2	0 23.2	289 4348	1 5100	18 29.3
29	46 0.57	7.01	39 45.4	0 38.4	290 9448	1 5145	18 13.6
Febr. 2	46 7.58	10.32	40 23.8	0 53.1	292 4593	1 5119	17 58.1
6	2 46 17.90	13.59	+15 41 16.9	1 7.9	1.293 9712	1 5026	17 42.5
10	46 31.49	16.82	42 24.8	1 22.2	295 4738	1 4867	17 27.0
14	46 48.31	19.99	43 47.0	1 36.3	296 9605	1 4630	17 11.6
18	47 8.30	23.10	45 23.3	1 49.8	298 4235	1 4332	16 56.2
22	47 31.40	26.10	47 13.1	2 3.0	299 8567	1 3963	16 40.8
26	2 47 57.50	29.00	+15 49 16.1	2 15.4	1.301 2530	1 3535	16 25.6
März 2	48 26.50	31.75	51 31.5	2 27.1	302 6065	1 3054	16 10.3
6	48 58.25	34.38	53 58.6	2 38.5	303 9119	1 2523	15 55.1
10	49 32.63	36.91	56 37.1	2 49.0	305 1642	1 1950	15 40.0
14	50 9.54	39.30	+15 59 26.1	2 58.8	306 3592	1 1324	15 24.9
18	2 50 48.84	41.56	+16 2 24.9	3 7.9	1.307 4916	1 0653	15 9.8
22	51 30.40	43.65	5 32.8	3 16.3	308 5569	9948	14 54.8
26	52 14.05	45.59	8 49.1	3 23.7	309 5517	9196	14 39.8
30	52 59.64	47.33	12 12.8	3 30.4	310 4713	8421	14 24.8
April 3	53 46.97	48.94	15 43.2	3 36.4	311 3134	7624	14 9.9
7	2 54 35.91	50.37	+16 19 19.6	3 41.4	1.312 0758	6807	13 54.9
11	55 26.28	51.66	23 1.0	3 45.8	312 7565	5957	13 40.1
15	56 17.94	52.79	26 46.8	3 49.4	313 3522	5096	13 25.2
19	57 10.73	53.72	30 36.2	3 52.0	313 8618	4210	13 10.3
23	58 4.45	54.48	34 28.2	3 54.1	314 2828	3314	12 55.5
27	2 58 58.93	55.05	+16 38 22.3	3 55.1	1.314 6142	2411	12 40.7
Mai 1	2 59 53.98	55.45	42 17.4	3 55.5	314 8553	1511	12 25.9
5	3 0 49.43	55.68	46 12.9	3 55.1	315 0064	609	12 11.1
9	1 45.11	55.77	50 8.0	3 54.1	315 0673	$\overline{299}$	11 56.3
13	2 40.88	55.67	54 2.1	3 52.2	315 0374	1202	11 41.5
17	3 3 36.55	55.39	+16 57 54.3	3 49.8	1.314 9172	2109	11 26.7
21	4 31.94	54.94	+17 1 44.1	3 46.5	314 7063	3004	11 11.8
25	5 26.88	54.29	5 30.6	3 42.6	314 4059	3881	10 57.0
29	6 21.17	53.49	9 13.2	3 38.1	314 0178	4745	10 42.2
Juni 2	7 14.66	52.53	12 51.3	3 32.9	313 5433	5591	10 27.4
6	3 8 7.19	51.43	+17 16 24.2	3 27.2	1.312 9842	6417	10 12.5
10	8 58.62	50.15	19 51.4	3 21.0	312 3425	7228	9 57.6
14	9 48.77	48.71	23 12.4	3 14.1	311 6197	8015	9 42.7
18	10 37.48	47.11	26 26.5	3 6.6	310 8182	8775	9 27.8
22	11 24.59	45.32	29 33.1	2 58.7	309 9407	9501	9 12.8
26	3 12 9.91	43.41	+17 32 31.8	2 50.2	1.308 9906	1 0190	8 57.9
30	12 53.32	41.38	35 22.0	2 41.4	307 9716	1 0845	8 42.9
Juli 4	3 13 34.70		+17 38 3.4		1.306 8871		8 27.8

Tag	0h Welt-Zeit: Scheinbare Rektaszension		0h Welt-Zeit: Scheinbare Deklination		0h Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Juli 4	3 13 34.70	39.20	+17 38 3.4	2 32.0	1.306 8871	1 1464	8 27.8
8	14 13.90	36.88	40 35.4	2 22.4	305 7407	1 2046	8 12.7
12	14 50.78	34.43	42 57.8	2 12.2	304 5361	1 2587	7 57.6
16	15 25.21	31.84	45 10.0	2 1.6	303 2774	1 3081	7 42.5
20	15 57.05	29.15	47 11.6	1 50.8	301 9693	1 3521	7 27.3
24	3 16 26.20	26.34	+17 49 2.4	1 39.5	1.300 6172	1 3906	7 12.0
28	16 52.54	23.45	50 41.9	1 28.3	299 2266	1 4238	6 56.7
Aug. 1	17 15.99	20.49	52 10.2	1 16.5	297 8028	1 4516	6 41.4
5	17 36.48	17.43	53 26.7	1 4.6	296 3512	1 4738	6 26.0
9	17 53.91	14.31	54 31.3	0 52.6	294 8774	1 4904	6 10.5
13	3 18 8.22	11.09	+17 55 23.9	0 40.3	1.293 3870	1 5003	5 55.0
17	18 19.31	7.87	56 4.2	0 27.9	291 8867	1 5030	5 39.5
21	18 27.18	4.60	56 32.1	0 15.5	290 3837	1 4985	5 23.9
25	18 31.78	1.35	56 47.6	0 3.1	288 8852	1 4874	5 8.2
29	18 33.13	1.90	56 50.7	0 9.2	287 3978	1 4697	4 52.5
Sept. 2	3 18 31.23	5.14	+17 56 41.5	0 21.5	1.285 9281	1 4456	4 36.8
6	18 26.09	8.35	56 20.0	0 33.8	284 4825	1 4135	4 21.0
10	18 17.74	11.53	55 46.2	0 45.7	283 0690	1 3747	4 5.1
14	18 6.21	14.64	55 0.5	0 57.4	281 6943	1 3281	3 49.2
18	17 51.57	17.63	54 3.1	1 8.8	280 3662	1 2740	3 33.2
22	3 17 33.94	20.49	+17 52 54.3	1 19.9	1.279 0922	1 2128	3 17.2
26	17 13.45	23.24	51 34.4	1 30.4	277 8794	1 1454	3 1.1
30	16 50.21	25.85	50 4.0	1 40.4	276 7340	1 0723	2 45.0
Okt. 4	16 24.36	28.30	48 23.6	1 49.8	275 6617	9920	2 28.8
8	15 56.06	30.58	46 33.8	1 58.8	274 6697	9059	2 12.6
12	3 15 25.48	32.67	+17 44 35.0	2 6.9	1.273 7638	8133	1 56.4
16	14 52.81	34.51	42 28.1	2 14.2	272 9505	7161	1 40.1
20	14 18.30	36.09	40 13.9	2 20.7	272 2344	6138	1 23.8
24	13 42.21	37.47	37 53.2	2 26.2	271 6206	5085	1 7.5
28	13 4.74	38.56	35 27.0	2 30.8	271 1121	3998	0 51.2
Nov. 1	3 12 26.18	39.43	+17 32 56.2	2 34.4	1.270 7123	2883	0 34.8
5	11 46.75	40.00	30 21.8	2 36.8	270 4240	1743	0 18.4
9	11 6.75	40.33	27 45.0	2 38.4	270 2497	582	{0 2.0 23 57.9}
13	10 26.42	40.32	25 6.6	2 38.6	270 1915	583	23 41.5
17	9 46.10	40.03	22 28.0	2 37.8	270 2498	1740	23 25.1
21	3 9 6.07	39.44	+17 19 50.2	2 35.7	1.270 4238	2890	23 8.7
25	8 26.63	38.60	17 14.5	2 32.6	270 7128	4016	22 52.4
29	7 48.03	37.51	14 41.9	2 28.3	271 1144	5126	22 36.0
Dez. 3	7 10.52	36.14	12 13.6	2 22.8	271 6270	6201	22 19.7
7	6 34.38	34.52	9 50.8	2 16.6	272 2471	7249	22 3.3
11	3 5 59.86	32.63	+17 7 34.2	2 8.9	1.272 9720	8247	21 47.1
15	5 27.23	30.49	5 25.3	2 0.2	273 7967	9195	21 30.8
19	4 56.74	28.18	3 25.1	1 50.9	274 7162	1 0080	21 14.6
23	4 28.56	25.65	+17 1 34.2	1 40.6	275 7242	1 0903	20 58.4
27	4 2.91	22.97	+16 59 53.6	1 29.4	276 8145	1 1661	20 42.2
31	3 39.94	20.15	58 24.2	1 17.8	277 9806	1 2355	20 26.1
35	3 3 19.79		+16 57 6.4		1.279 2161		20 10.1

Tag	0h Welt-Zeit: Scheinbare Rektaszension		0h Welt-Zeit: Scheinbare Deklination		0h Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1939	h m s	s	° ′ ″	′ ″			h m
Jan. −3	11 37 22.15	1.66	+3 42 38.8	0 23.1	1.477 0187	9750	5 13.3
+1	37 20.49	3.66	43 1.9	0 35.9	476 0437	9569	4 57.5
5	37 16.83	5.62	43 37.8	0 48.4	475 0868	9343	4 41.7
9	37 11.21	7.55	44 26.2	1 0.5	474 1525	9068	4 25.9
13	37 3.66	9.42	45 26.7	1 12.4	473 2457	8747	4 10.1
17	11 36 54.24	11.24	+3 46 39.1	1 23.8	1.472 3710	8374	3 54.2
21	36 43.00	13.00	48 2.9	1 34.5	471 5336	7951	3 38.3
25	36 30.00	14.62	49 37.4	1 44.6	470 7385	7487	3 22.3
29	36 15.38	16.17	51 22.0	1 54.1	469 9898	6983	3 6.3
Febr. 2	35 59.21	17.61	53 16.1	2 2.7	469 2915	6441	2 50.4
6	11 35 41.60	18.91	+3 55 18.8	2 10.5	1.468 6474	5869	2 34.3
10	35 22.69	20.13	57 29.3	2 17.7	468 0605	5263	2 18.3
14	35 2.56	21.19	+3 59 47.0	2 23.9	467 5342	4624	2 2.2
18	34 41.37	22.13	+4 2 10.9	2 29.1	467 0718	3960	1 46.2
22	34 19.24	22.91	4 40.0	2 33.5	466 6758	3270	1 30.1
26	11 33 56.33	23.54	+4 7 13.5	2 36.5	1.466 3488	2569	1 13.9
März 2	33 32.79	24.00	9 50.0	2 38.8	466 0919	1857	0 57.8
6	33 8.79	24.31	12 28.8	2 40.0	465 9062	1139	0 41.7
10	32 44.48	24.50	15 8.8	2 40.4	465 7923	414	0 25.6
14	32 19.98	24.51	17 49.2	2 39.6	465 7509	$\overline{316}$	0 9.5
18	11 31 55.47	24.36	+4 20 28.8	2 37.8	1.465 7825	1039	23 49.3
22	31 31.11	24.07	23 6.6	2 35.0	465 8864	1758	23 33.2
26	31 7.04	23.60	25 41.6	2 31.3	466 0622	2460	23 17.0
30	30 43.44	22.99	28 12.9	2 26.5	466 3082	3144	23 0.9
April 3	30 20.45	22.25	30 39.4	2 21.0	466 6226	3805	22 44.8
7	11 29 58.20	21.37	+4 33 0.4	2 14.7	1.467 0031	4448	22 28.7
11	29 36.83	20.37	35 15.1	2 7.5	467 4479	5065	22 12.6
15	29 16.46	19.24	37 22.6	1 59.6	467 9544	5652	21 56.6
19	28 57.22	17.99	39 22.2	1 50.9	468 5196	6209	21 40.5
23	28 39.23	16.62	41 13.1	1 41.6	469 1405	6728	21 24.5
27	11 28 22.61	15.16	+4 42 54.7	1 31.6	1.469 8133	7207	21 8.5
Mai 1	28 7.45	13.63	44 26.3	1 21.3	470 5340	7643	20 52.5
5	27 53.82	12.00	45 47.6	1 10.6	471 2983	8046	20 36.6
9	27 41.82	10.33	46 58.2	0 59.3	472 1029	8404	20 20.7
13	27 31.49	8.57	47 57.5	0 47.8	472 9433	8727	20 4.8
17	11 27 22.92	6.78	+4 48 45.3	0 35.9	1.473 8160	8999	19 48.9
21	27 16.14	4.91	49 21.2	0 23.8	474 7159	9228	19 33.1
25	27 11.23	3.02	49 45.0	0 11.6	475 6387	9407	19 17.3
29	27 8.21	1.14	49 56.6	$\overline{0\ 0.7}$	476 5794	9542	19 1.5
Juni 2	27 7.07	$\overline{0.76}$	49 55.9	0 13.0	477 5336	9633	18 45.8
6	11 27 7.83	2.68	+4 49 42.9	0 25.2	1.478 4969	9686	18 30.1
10	27 10.51	4.59	49 17.7	0 37.5	479 4655	9694	18 14.4
14	27 15.10	6.50	48 40.2	0 49.8	480 4349	9657	17 58.7
18	27 21.60	8.38	47 50.4	1 1.7	481 4006	9575	17 43.1
22	27 29.98	10.24	46 48.7	1 13.4	482 3581	9450	17 27.6
26	11 27 40.22	12.05	+4 45 35.3	1 24.8	1.483 3031	9286	17 12.0
30	27 52.27	13.82	44 10.5	1 36.0	484 2317	9083	16 56.5
Juli 4	11 28 6.09		+4 42 34.5		1.485 1400		16 41.0

Tag		0ʰ Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1939		h m s	s	° ′ ″	′ ″			h m
Juli	4	11 28 6.09	15.55	+4 42 34.5	1 46.8	1.485 1400	8847	16 41.0
	8	28 21.64	17.21	40 47.7	1 57.3	486 0247	8574	16 25.5
	12	28 38.85	18.83	38 50.4	2 7.3	486 8821	8266	16 10.1
	16	28 57.68	20.39	36 43.1	2 16.9	487 7087	7920	15 54.7
	20	29 18.07	21.86	34 26.2	2 26.1	488 5007	7544	15 39.3
	24	11 29 39.93	23.26	+4 32 0.1	2 34.7	1.489 2551	7136	15 23.9
	28	30 3.19	24.57	29 25.4	2 42.6	489 9687	6700	15 8.6
Aug.	1	30 27.76	25.79	26 42.8	2 50.2	490 6387	6246	14 53.3
	5	30 53.55	26.94	23 52.6	2 57.0	491 2633	5763	14 38.0
	9	31 20.49	28.00	20 55.6	3 3.4	491 8396	5258	14 22.7
	13	11 31 48.49	28.97	+4 17 52.2	3 9.2	1.492 3654	4728	14 7.4
	17	32 17.46	29.82	14 43.0	3 14.1	492 8382	4179	13 52.2
	21	32 47.28	30.58	11 28.9	3 18.4	493 2561	3612	13 37.0
	25	33 17.86	31.22	8 10.5	3 22.0	493 6173	3035	13 21.7
	29	33 49.08	31.76	4 48.5	3 25.2	493 9208	2446	13 6.5
Sept.	2	11 34 20.84	32.19	+4 1 23.3	3 27.2	1.494 1654	1847	12 51.3
	6	34 53.03	32.53	+3 57 56.1	3 29.0	494 3501	1237	12 36.1
	10	35 25.56	32.76	54 27.1	3 29.9	494 4738	618	12 20.9
	14	35 58.32	32.86	50 57.2	3 29.8	494 5356	$\overline{7}$	12 5.8
	18	36 31.18	32.83	47 27.4	3 29.2	494 5349	633	11 50.6
	22	11 37 4.01	32.70	+3 43 58.2	3 27.7	1.494 4716	1251	11 35.4
	26	37 36.71	32.45	40 30.5	3 25.6	494 3465	1871	11 20.2
	30	38 9.16	32.09	37 4.9	3 22.7	494 1594	2484	11 5.0
Okt.	4	38 41.25	31.62	33 42.2	3 19.1	493 9110	3092	10 49.8
	8	39 12.87	31.05	30 23.1	3 14.7	493 6018	3691	10 34.6
	12	11 39 43.92	30.34	+3 27 8.4	3 9.7	1.493 2327	4280	10 19.4
	16	40 14.26	29.52	23 58.7	3 3.7	492 8047	4851	10 4.2
	20	40 43.78	28.58	20 55.0	2 57.2	492 3196	5404	9 48.9
	24	41 12.36	27.53	17 57.8	2 49.9	491 7792	5934	9 33.7
	28	41 39.89	26.41	15 7.9	2 42.0	491 1858	6442	9 18.4
Nov.	1	11 42 6.30	25.17	+3 12 25.9	2 33.6	1.490 5416	6928	9 3.1
	5	42 31.47	23.82	9 52.3	2 24.4	489 8488	7390	8 47.8
	9	42 55.29	22.40	7 27.9	2 14.7	489 1098	7823	8 32.5
	13	43 17.69	20.86	5 13.2	2 4.3	488 3275	8219	8 17.1
	17	43 38.55	19.23	3 8.9	1 53.4	487 5056	8580	8 1.7
	21	11 43 57.78	17.54	+3 1 15.5	1 42.0	1.486 6476	8901	7 46.3
	25	44 15.32	15.79	+2 59 33.5	1 30.5	485 7575	9184	7 30.9
	29	44 31.11	13.98	58 3.0	1 18.3	484 8391	9430	7 15.4
Dez.	3	44 45.09	12.09	56 44.7	1 6.0	483 8961	9635	6 59.9
	7	44 57.18	10.15	55 38.7	0 53.1	482 9326	9796	6 44.4
	11	11 45 7.33	8.18	+2 54 45.6	0 40.2	1.481 9530	9905	6 28.8
	15	45 15.51	6.17	54 5.4	0 27.0	480 9625	9968	6 13.2
	19	45 21.68	4.15	53 38.4	0 13.9	479 9657	9978	5 57.6
	23	45 25.83	2.11	53 24.5	0 0.9	478 9679	9941	5 41.9
	27	45 27.94	0.10	53 23.6	$\overline{0\ 12.3}$	477 9738	9858	5 26.3
	31	45 28.04	$\overline{1.91}$	53 35.9	0 25.3	476 9880	9726	5 10.5
	35	11 45 26.13		+2 54 1.2		1.476 0154		4 54.8

Pluto 1939

Tag	Rektaszension 1950.0 (0h Welt-Zeit)		Fixstern-aberration	Deklination 1950.0		Fixstern-aberration	log Δ		Licht-zeit	Obere Kulmination in Greenwich
1939	h m s	s	s	° ′ ″	″	″			d	h m
Jan. −3	8 16 18.41	20.23	+1.30	+23 14 2.4	89.9	−4.6	1.582 5709	3411	0.2207	1 52
+1	15 58.18	20.95	1.34	15 32.3	90.6	4.7	582 2298	2890	2205	1 36
5	15 37.23	21.55	1.38	17 2.9	90.7	4.7	581 9408	2353	2204	1 20
9	15 15.68	22.02	1.41	18 33.6	90.5	4.7	581 7055	1804	2202	1 4
13	14 53.66	22.36	1.43	20 4.1	89.7	4.6	581 5251	1245	2201	0 48
17	8 14 31.30	22.56	+1.44	+23 21 33.8	88.4	−4.6	1.581 4006	680	0.2201	0 32
21	14 8.74	22.61	1.45	23 2.2	86.8	4.5	581 3326	111	2200	0 16
25	13 46.13	22.51	1.45	24 29.0	84.6	4.4	581 3215	455	2200	{0 0 / 23 56}
29	13 23.62	22.26	1.44	25 53.6	82.1	4.3	581 3670	1013	2201	23 39
Febr. 2	13 1.36	21.89	1.42	27 15.7	79.1	4.1	581 4683	1561	2201	23 23
6	8 12 39.47	21.38	+1.40	+23 28 34.8	75.8	−3.9	1.581 6244	2098	0.2202	23 7
10	12 18.09	20.75	1.37	29 50.6	72.1	3.7	581 8342	2622	2203	22 51
14	11 57.34	19.98	1.33	31 2.7	68.1	3.5	582 0964	3132	2204	22 35
18	11 37.36	19.08	1.28	32 10.8	63.7	3.3	582 4096	3622	2206	22 19
22	11 18.28	18.07	1.23	33 14.5	59.1	3.1	582 7718	4086	2208	22 3
26	8 11 0.21	16.95	+1.17	+23 34 13.6	54.4	−2.8	1.583 1804	4524	0.2210	21 47
März 2	10 43.26	15.72	1.11	35 8.0	49.4	2.5	583 6328	4934	2212	21 31
6	10 27.54	14.41	1.04	35 57.4	44.2	2.2	584 1262	5315	2215	21 15
10	10 13.13	13.02	0.97	36 41.6	38.8	1.9	584 6577	5665	2217	20 59
14	10 0.11	11.55	0.89	37 20.4	33.3	1.6	585 2242	5985	2220	20 43
18	8 9 48.56	10.01	+0.81	+23 37 53.7	27.8	−1.3	1.585 8227	6273	0.2223	20 27
22	9 38.55	8.39	0.72	38 21.5	22.2	1.0	586 4500	6525	2227	20 11
26	9 30.16	6.73	0.63	38 43.7	16.5	0.7	587 1025	6739	2230	19 55
30	9 23.43	5.05	0.54	39 0.2	10.9	0.4	587 7764	6914	2233	19 39
April 3	9 18.38	3.34	0.44	39 11.1	5.4	−0.1	588 4678	7055	2237	19 24
7	8 9 15.04	1.60	+0.34	+23 39 16.5	0.2	+0.2	1.589 1733	7161	0.2241	19 8
11	9 13.44	0.15	0.25	39 16.3	5.7	0.5	589 8894	7234	2244	18 52
15	9 13.59	1.92	0.15	39 10.6	11.1	0.8	590 6128	7270	2248	18 36
19	9 15.51	3.67	+0.05	38 59.5	16.4	1.1	591 3398	7269	2252	18 21
23	9 19.18	5.42	−0.05	38 43.1	21.5	1.4	592 0667	7230	2256	18 5
27	8 9 24.60	7.14	−0.15	+23 38 21.6	26.5	+1.7	1.592 7897	7157	0.2259	17 49
Mai 1	9 31.74	8.82	0.25	37 55.1	31.3	2.0	593 5054	7052	2263	17 34
5	9 40.56	10.47	0.34	37 23.8	35.9	2.2	594 2106	6916	2267	17 18
9	9 51.03	12.09	0.43	36 47.9	40.4	2.5	594 9022	6751	2270	17 3
13	10 3.12	13.66	0.52	36 7.5	44.6	2.7	595 5773	6556	2274	16 47
17	8 10 16.78	15.17	−0.61	+23 35 22.9	48.6	+3.0	1.596 2329	6330	0.2277	16 32
21	10 31.95	16.63	0.70	34 34.3	52.4	3.2	596 8659	6073	2281	16 16
25	10 48.58	18.01	0.78	33 41.9	55.9	3.4	597 4732	5791	2284	16 1
29	11 6.59	19.33	0.86	32 46.0	59.2	3.6	598 0523	5485	2287	15 45
Juni 2	11 25.92	20.57	0.94	31 46.8	62.2	3.8	598 6008	5160	2290	15 30
6	8 11 46.49	21.73	−1.01	+23 30 44.6	64.9	+4.0	1.599 1168	4814	0.2292	15 14
10	12 8.22	22.83	1.07	29 39.7	67.4	4.1	599 5982	4446	2295	14 59
14	12 31.05	23.84	1.13	28 32.3	69.6	4.2	600 0428	4057	2297	14 44
18	12 54.89	24.75	1.19	27 22.7	71.5	4.3	600 4485	3652	2299	14 28
22	13 19.64	25.58	1.24	26 11.2	73.0	4.4	600 8137	3231	2301	14 13
26	13 45.22	26.30	1.29	24 58.2	74.3	4.5	601 1368	2797	2303	13 58
30	8 14 11.52		−1.33	+23 23 43.9		+4.6	1.601 4165		0.2305	13 43

Tag		Rektaszension 1950.0 (0h Welt-Zeit)		Fixstern-aberration	Deklination 1950.0		Fixstern-aberration	log Δ		Licht-zeit	Obere Kulmination in Greenwich
1939		h m s	s	s	° ′ ″	″	″			d	h m
Juni	30	8 14 11.52	26.93	−1.33	+23 23 43.9	75.2	+4.6	1.601 4165	2353	0.2305	13 43
Juli	4	14 38.45	27.47	1.36	22 28.7	75.9	4.6	601 6518	1900	2306	13 27
	8	15 5.92	27.92	1.39	21 12.8	76.2	4.7	601 8418	1438	2307	13 12
	12	15 33.84	28.28	1.41	19 56.6	76.3	4.7	601 9856	968	2308	12 57
	16	16 2.12	28.52	1.43	18 40.3	75.9	4.7	602 0824	490	2308	12 42
	20	8 16 30.64	28.66	−1.44	+23 17 24.4	75.3	+4.6	1.602 1314	8	0.2308	12 26
	24	16 59.30	28.69	1.45	16 9.1	74.3	4.6	602 1322	473	2308	12 11
	28	17 27.99	28.63	1.45	14 54.8	73.0	4.5	602 0849	952	2308	11 56
Aug.	1	17 56.62	28.47	1.44	13 41.8	71.3	4.4	601 9897	1429	2308	11 41
	5	18 25.09	28.22	1.43	12 30.5	69.4	4.3	601 8468	1903	2307	11 25
	9	8 18 53.31	27.85	−1.41	+23 11 21.1	67.1	+4.2	1.601 6565	2373	0.2306	11 10
	13	19 21.16	27.39	1.38	10 14.0	64.5	4.0	601 4192	2838	2305	10 55
	17	19 48.55	26.82	1.35	9 9.5	61.5	3.9	601 1354	3295	2303	10 40
	21	20 15.37	26.15	1.32	8 8.0	58.3	3.7	600 8059	3739	2301	10 24
	25	20 41.52	25.39	1.27	7 9.7	54.7	3.5	600 4320	4169	2299	10 9
	29	8 21 6.91	24.54	−1.22	+23 6 15.0	50.9	+3.3	1.600 0151	4584	0.2297	9 54
Sept.	2	21 31.45	23.61	1.17	5 24.1	46.7	3.1	599 5567	4984	2295	9 38
	6	21 55.06	22.58	1.11	4 37.4	42.4	2.8	599 0583	5368	2292	9 23
	10	22 17.64	21.47	1.05	3 55.0	37.7	2.6	598 5215	5734	2289	9 8
	14	22 39.11	20.25	0.98	3 17.3	32.8	2.3	597 9481	6079	2286	8 52
	18	8 22 59.36	18.96	−0.91	+23 2 44.5	27.6	+2.0	1.597 3402	6399	0.2283	8 37
	22	23 18.32	17.60	0.83	2 16.9	22.3	1.7	596 7003	6691	2280	8 22
	26	23 35.92	16.18	0.75	1 54.6	16.7	1.4	596 0312	6957	2276	8 6
	30	23 52.10	14.69	0.67	1 37.9	11.1	1.1	595 3355	7198	2273	7 51
Okt.	4	24 6.79	13.14	0.58	1 26.8	5.2	0.7	594 6157	7411	2269	7 36
	8	8 24 19.93	11.54	−0.49	+23 1 21.6	0.8	+0.4	1.593 8746	7593	0.2265	7 20
	12	24 31.47	9.87	0.40	1 22.4	6.9	0.0	593 1153	7743	2261	7 5
	16	24 41.34	8.17	0.30	1 29.3	12.9	−0.3	592 3410	7856	2257	6 49
	20	24 49.51	6.44	0.20	1 42.2	19.0	0.7	591 5554	7933	2253	6 33
	24	24 55.95	4.68	−0.10	2 1.2	25.1	1.0	590 7621	7975	2249	6 18
	28	8 25 0.63	2.92	0.00	+23 2 26.3	31.2	−1.3	1.589 9646	7983	0.2245	6 2
Nov.	1	25 3.55	1.14	+0.10	2 57.5	37.2	1.7	589 1663	7955	2241	5 46
	5	25 4.69	0.65	0.20	3 34.7	43.1	2.0	588 3708	7889	2236	5 30
	9	25 4.04	2.44	0.30	4 17.8	48.9	2.3	587 5819	7785	2232	5 15
	13	25 1.60	4.20	0.40	5 6.7	54.3	2.6	586 8034	7640	2228	4 59
	17	8 24 57.40	5.94	+0.49	+23 6 1.0	59.6	−2.9	1.586 0394	7457	0.2224	4 43
	21	24 51.46	7.63	0.59	7 0.6	64.7	3.2	585 2937	7237	2221	4 27
	25	24 43.83	9.28	0.68	8 5.3	69.4	3.5	584 5700	6982	2217	4 12
	29	24 34.55	10.86	0.77	9 14.7	73.9	3.7	583 8718	6693	2213	3 56
Dez.	3	24 23.69	12.39	0.85	10 28.6	78.0	3.9	583 2025	6368	2210	3 40
	7	8 24 11.30	13.86	+0.93	+23 11 46.6	81.7	−4.1	1.582 5657	6009	0.2207	3 24
	11	23 57.44	15.24	1.01	13 8.3	84.9	4.3	581 9648	5617	2204	3 8
	15	23 42.20	16.51	1.08	14 33.2	87.8	4.5	581 4031	5194	2201	2 52
	19	23 25.69	17.68	1.15	16 1.0	90.2	4.6	580 8837	4744	2198	2 36
	23	23 8.01	18.74	1.21	17 31.2	92.0	4.7	580 4093	4270	2196	2 20
	27	22 49.27	19.68	1.27	19 3.2	93.4	4.8	579 9823	3777	2194	2 4
	31	8 22 29.59		+1.31	+23 20 36.6		−4.9	1.579 6046		0.2192	1 48

0h Welt-Zeit	Mittleres Äquinoktium 1950.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Jan. 0	+0.150 584	+17 255	− 48	0	−0.891 448	+ 2 617	+277	+1	−0.386 635	+1 135	+121	+4
1	0.167 839	17 201	54	0	0.888 831	2 893	276	+2	0.385 500	1 254	119	−1
2	0.185 040	17 143	58	+4	0.885 938	3 168	275	+1	0.384 246	1 373	119	−1
3	0.202 183	17 079	64	+3	0.882 770	3 440	272	−4	0.382 873	1 492	119	+1
4	0.219 262	17 011	68	+3	0.879 330	3 713	273	+4	0.381 381	1 610	118	−1
5	0.236 273	16 936	75	−4	0.875 617	3 984	271	+3	0.379 771	1 727	117	−1
6	+0.253 209	+16 859	− 77	+3	−0.871 633	+ 4 253	+269	+1	−0.378 044	+1 845	+118	+3
7	0.270 068	16 775	84	−1	0.867 380	4 522	269	+5	0.376 199	1 961	116	−1
8	0.286 843	16 688	87	+3	0.862 858	4 789	267	+3	0.374 238	2 077	116	+1
9	0.303 531	16 594	94	−2	0.858 069	5 056	267	+5	0.372 161	2 193	116	+3
10	0.320 125	16 497	97	+4	0.853 013	5 320	264	−1	0.369 968	2 308	115	+2
11	0.336 622	16 394	103	+1	0.847 693	5 584	264	+2	0.367 660	2 423	115	+2
12	+0.353 016	+16 286	−108	−1	−0.842 109	+ 5 847	+263	+3	−0.365 237	+2 536	+113	−4
13	0.369 302	16 172	114	−5	0.836 262	6 107	260	−3	0.362 701	2 649	113	−1
14	0.385 474	16 053	119	−3	0.830 155	6 366	259	−1	0.360 052	2 762	113	+4
15	0.401 527	15 930	123	+2	0.823 789	6 624	258	+2	0.357 290	2 874	112	+3
16	0.417 457	15 801	129	−1	0.817 165	6 879	255	−2	0.354 416	2 984	110	−2
17	0.433 258	15 666	135	−5	0.810 286	7 132	253	−3	0.351 432	3 094	110	0
18	+0.448 924	+15 526	−140	−4	−0.803 154	+ 7 383	+251	−1	−0.348 338	+3 203	+109	−1
19	0.464 450	15 382	144	+3	0.795 771	7 632	249	0	0.345 135	3 310	107	−5
20	0.479 832	15 233	149	+4	0.788 139	7 877	245	−3	0.341 825	3 417	107	−1
21	0.495 065	15 078	155	0	0.780 262	8 122	245	+4	0.338 408	3 522	105	−2
22	0.510 143	14 919	159	0	0.772 140	8 361	239	−4	0.334 886	3 627	105	+2
23	0.525 062	14 754	165	−5	0.763 779	8 600	239	+4	0.331 259	3 729	102	−2
24	+0.539 816	+14 585	−169	−1	−0.755 179	+ 8 835	+235	+1	−0.327 530	+3 832	+103	+4
25	0.554 401	14 412	173	+4	0.746 344	9 066	231	−5	0.323 698	3 931	99	−3
26	0.568 813	14 234	178	+3	0.737 278	9 294	228	−4	0.319 767	4 031	100	+4
27	0.583 047	14 052	182	+5	0.727 984	9 520	226	+2	0.315 736	4 128	97	+1
28	0.597 099	13 866	186	+4	0.718 464	9 742	222	+1	0.311 608	4 225	97	+5
29	0.610 965	13 675	191	−1	0.708 722	9 960	218	−2	0.307 383	4 319	94	0
30	0.624 640	+13 481	−194	0	−0.698 762	+10 175	+215	0	−0.303 064	+4 413	+ 94	+2
31	+0.638 121	13 282	199	−3	0.688 587	10 387	212	+1	0.298 651	4 504	91	−2
Febr. 1	0.651 403	13 081	201	+5	0.678 200	10 595	208	−2	0.294 147	4 595	91	+2
2	0.664 484	12 876	205	+5	0.667 605	10 799	204	−4	0.289 552	4 684	89	−1
3	0.677 360	12 668	208	+4	0.656 806	11 001	202	+1	0.284 868	4 771	87	−5
4	0.690 028	12 455	213	−3	0.645 805	11 199	198	0	0.280 097	4 857	86	−3
5	+0.702 483	+12 240	−215	0	−0.634 606	+11 394	+195	+1	−0.275 240	+4 942	+ 85	0
6	0.714 723	12 021	219	0	0.623 212	11 586	192	+1	0.270 298	5 025	83	+1
7	0.726 744	11 799	222	+2	0.611 626	11 774	188	−2	0.265 273	5 108	83	+4
8	0.738 543	11 573	226	−1	0.599 852	11 959	185	0	0.260 165	5 187	79	−4
9	0.750 116	+11 343	230	−4	0.587 893	+12 141	182	+3	0.254 978	+5 267	80	+2
10	+0.761 459		−233	−3	−0.575 752		+179	+4	−0.249 711		+ 77	−3

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Welt-Zeit	Mittleres Äquinoktium 1950.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939 Febr. 10	+0.761 459	+11 110	−233	−3	−0.575 752	+12 320	+179	+4	−0.249 711	+5 344	+77	−3
11	0.772 569	10 873	237	−4	0.563 432	12 494	174	−3	0.244 367	5 419	75	−5
12	0.783 442	10 633	240	−2	0.550 938	12 664	170	−5	0.238 948	5 493	74	−1
13	0.794 075	10 389	244	−3	0.538 274	12 832	168	+1	0.233 455	5 566	73	+4
14	0.804 464	10 142	247	0	0.525 442	12 994	162	−4	0.227 889	5 637	71	+2
15	0.814 606	9 892	250	+1	0.512 448	13 153	159	0	0.222 252	5 705	68	−4
16	+0.824 498	+9 638	−254	−2	−0.499 295	+13 308	+155	+1	−0.216 547	+5 772	+67	−4
17	0.834 136	9 382	256	0	0.485 987	13 458	150	−3	0.210 775	5 837	65	−5
18	0.843 518	9 122	260	−4	0.472 529	13 603	145	−4	0.204 938	5 900	63	−5
19	0.852 640	8 859	263	−3	0.458 926	13 746	143	+4	0.199 038	5 961	61	−3
20	0.861 499	8 595	264	+3	0.445 180	13 882	136	−4	0.193 077	6 020	59	0
21	0.870 094	8 327	268	−1	0.431 298	14 014	132	−4	0.187 057	6 078	58	+5
22	+0.878 421	+8 057	−270	−2	−0.417 284	+14 142	+128	−2	−0.180 979	+6 133	+55	+3
23	0.886 478	7 784	273	−4	0.403 142	14 264	122	−4	0.174 846	6 186	53	+2
24	0.894 262	7 510	274	+2	0.388 878	14 383	119	+2	0.168 660	6 238	52	+4
25	0.901 772	7 234	276	+2	0.374 495	14 496	113	0	0.162 422	6 286	48	−2
26	0.909 006	6 955	279	−1	0.359 999	14 605	109	0	0.156 136	6 334	48	+3
27	0.915 961	6 676	279	+4	0.345 394	14 708	103	−5	0.149 802	6 379	45	−1
28	+0.922 637	+6 395	−281	+3	−0.330 686	+14 807	+99	−2	−0.143 423	+6 421	+42	−3
März 1	0.929 032	6 112	283	−1	0.315 879	14 902	95	+2	0.137 002	6 463	42	+4
2	0.935 144	5 828	284	0	0.300 977	14 992	90	0	0.130 539	6 502	39	+3
3	0.940 972	5 544	284	+3	0.285 985	15 077	85	−3	0.124 037	6 539	37	+3
4	0.946 516	5 257	287	−1	0.270 908	15 158	81	−2	0.117 498	6 575	36	+5
5	0.951 773	4 971	286	+5	0.255 750	15 235	77	−2	0.110 923	6 608	33	0
6	+0.956 744	+4 682	−289	+1	−0.240 515	+15 307	+72	−3	−0.104 315	+6 640	+32	0
7	0.961 426	4 393	289	+4	0.225 208	15 376	69	0	0.097 675	6 669	29	−4
8	0.965 819	4 103	290	+3	0.209 832	15 439	63	−3	0.091 006	6 697	28	−1
9	0.969 922	3 810	293	−4	0.194 393	15 499	60	+2	0.084 309	6 723	26	−1
10	0.973 732	3 518	292	+1	0.178 894	15 555	56	+3	0.077 586	6 747	24	−2
11	0.977 250	3 223	295	−3	0.163 339	15 605	50	−4	0.070 839	6 769	22	−3
12	+0.980 473	+2 928	−295	0	−0.147 734	+15 650	+45	−5	−0.064 070	+6 788	+19	−5
13	0.983 401	2 632	296	+1	0.132 084	15 692	42	+2	0.057 282	6 806	18	0
14	0.986 033	2 335	297	0	0.116 392	15 729	37	+3	0.050 476	6 822	16	+3
15	0.988 368	2 037	298	−2	0.100 663	15 760	31	−2	0.043 654	6 836	14	+4
16	0.990 405	1 738	299	−3	0.084 903	15 787	27	−1	0.036 818	6 847	11	+1
17	0.992 143	1 440	298	+3	0.069 116	15 809	22	−2	0.029 971	6 857	10	+2
18	+0.993 583	+1 140	−300	−1	−0.053 307	+15 825	+16	−4	−0.023 114	+6 863	+6	−4
19	0.994 723	841	299	+1	0.037 482	15 838	13	+2	0.016 251	6 869	6	+2
20	0.995 564	540	301	−4	0.021 644	15 844	6	−3	0.009 382	6 871	2	−1
21	0.996 104	+241	299	+4	−0.005 800	15 846	+2	+1	−0.002 511	6 873	+2	+4
22	0.996 345	−58	299	+4	+0.010 046	+15 843	−3	+3	+0.004 362	+6 870	−3	−4
23	+0.996 287		−300	−1	+0.025 889		−8	+3	+0.011 232		−3	+3

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0^h Welt-Zeit	Mittleres Äquinoktium 1950.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
März 23	+0.996 287	− 358	−300	−1	+0.025 889	+15 835	− 8	+3	+0.011 232	+6 867	− 3	+3
24	0.995 929	656	298	+2	0.041 724	15 821	14	0	0.018 099	6 862	5	+4
25	0.995 273	955	299	−2	0.057 545	15 803	18	+3	0.024 961	6 853	9	−4
26	0.994 318	1 251	296	+3	0.073 348	15 780	23	+1	0.031 814	6 843	10	−1
27	0.993 067	1 548	297	−4	0.089 128	15 751	29	−2	0.038 657	6 831	12	+2
28	0.991 519	1 843	295	−2	0.104 879	15 719	32	+3	0.045 488	6 817	14	+4
29	+0.989 676	− 2 137	−294	−1	+0.120 598	+15 681	− 38	0	+0.052 305	+6 801	−16	+5
30	0.987 539	2 429	292	+2	0.136 279	15 639	42	+2	0.059 106	6 783	18	+5
31	0.985 110	2 721	292	−1	0.151 918	15 593	46	+4	0.065 889	6 764	19	+5
April 1	0.982 389	3 010	289	+4	0.167 511	15 543	50	+3	0.072 653	6 741	23	−4
2	0.979 379	3 299	289	0	0.183 054	15 487	56	−4	0.079 394	6 718	23	−2
3	0.976 080	3 586	287	+2	0.198 541	15 428	59	0	0.086 112	6 692	26	−5
4	+0.972 494	− 3 872	−286	+2	+0.213 969	+15 366	− 62	+4	+0.092 804	+6 665	−27	−4
5	0.968 622	4 157	285	+1	0.229 335	15 298	68	−1	0.099 469	6 635	30	−5
6	0.964 465	4 440	283	+3	0.244 633	15 227	71	+3	0.106 104	6 605	30	+4
7	0.960 025	4 722	282	0	0.259 860	15 152	75	+3	0.112 709	6 572	33	+2
8	0.955 303	5 004	282	−4	0.275 012	15 072	80	−2	0.119 281	6 538	34	+4
9	0.950 299	5 283	279	+1	0.290 084	14 988	84	−3	0.125 819	6 501	37	−1
10	+0.945 016	− 5 561	−278	0	+0.305 072	+14 899	− 89	−4	+0.132 320	+6 462	−39	−1
11	0.939 455	5 838	277	−2	0.319 971	14 807	92	+1	0.138 782	6 423	39	+4
12	0.933 617	6 113	275	0	0.334 778	14 710	97	−1	0.145 205	6 380	43	−3
13	0.927 504	6 386	273	+3	0.349 488	14 608	102	−3	0.151 585	6 335	45	−3
14	0.921 118	6 657	271	+4	0.364 096	14 503	105	0	0.157 920	6 290	45	+4
15	0.914 461	6 926	269	+3	0.378 599	14 392	111	−5	0.164 210	6 242	48	+2
16	+0.907 535	− 7 194	−268	−1	+0.392 991	+14 277	−115	−2	+0.170 452	+6 192	−50	0
17	0.900 341	7 458	264	+4	0.407 268	14 159	118	+5	0.176 644	6 140	52	0
18	0.892 883	7 721	263	0	0.421 427	14 036	123	+3	0.182 784	6 087	53	+3
19	0.885 162	7 981	260	+1	0.435 463	13 908	128	−2	0.188 871	6 031	56	+1
20	0.877 181	8 238	257	+2	0.449 371	13 775	133	−4	0.194 902	5 974	57	+4
21	0.868 943	8 493	255	−1	0.463 146	13 640	135	+4	0.200 876	5 915	59	+4
22	+0.860 450	− 8 744	−251	+1	+0.476 786	+13 500	−140	+1	+0.206 791	+5 855	−60	+5
23	0.851 706	8 993	249	−2	0.490 286	13 355	145	−4	0.212 646	5 792	63	−3
24	0.842 713	9 238	245	+1	0.503 641	13 207	148	−3	0.218 438	5 727	65	−5
25	0.833 475	9 480	242	+3	0.516 848	13 055	152	−3	0.224 165	5 662	65	+2
26	0.823 995	9 718	238	+5	0.529 903	12 900	155	0	0.229 827	5 595	67	+2
27	0.814 277	9 953	235	+2	0.542 803	12 741	159	−2	0.235 422	5 526	69	0
28	+0.804 324	−10 185	−232	−2	+0.555 544	+12 579	−162	−3	+0.240 948	+5 456	−70	0
29	0.794 139	10 414	229	−5	0.568 123	12 413	166	−5	0.246 404	5 384	72	−1
30	0.783 725	10 639	225	−3	0.580 536	12 245	168	+1	0.251 788	5 312	72	+3
Mai 1	0.773 086	10 861	222	−2	0.592 781	12 074	171	+3	0.257 100	5 237	75	−2
2	0.762 225	−11 080	219	−1	0.604 855	+11 900	174	+1	0.262 337	+5 162	75	+1
3	+0.751 145		−215	+4	+0.616 755		−178	−4	+0.267 499		−77	−3

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Welt-Zeit	Mittleres Äquinoktium 1950.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Mai 3	+0.751 145	−11 295	−215	+4	+0.616 755	+11 722	−178	−4	+0.267 499	+5 085	− 77	−3
4	0.739 850	11 507	212	+3	0.628 477	11 542	180	−3	0.272 584	5 006	79	−4
5	0.728 343	11 717	210	−2	0.640 019	11 358	184	−4	0.277 590	4 927	79	+2
6	0.716 626	11 923	206	0	0.651 377	11 173	185	+3	0.282 517	4 846	81	+1
7	0.704 703	12 126	203	+1	0.662 550	10 983	190	−4	0.287 363	4 764	82	+3
8	0.692 577	12 325	199	+3	0.673 533	10 790	193	−5	0.292 127	4 680	84	+1
9	+0.680 252	−12 522	−197	−1	+0.684 323	+10 595	−195	0	+0.296 807	+4 596	− 84	+4
10	0.667 730	12 714	192	+3	0.694 918	10 396	199	0	0.301 403	4 509	87	−2
11	0.655 016	12 903	189	+1	0.705 314	10 195	201	+5	0.305 912	4 421	88	−1
12	0.642 113	13 089	186	−3	0.715 509	9 991	204	+4	0.310 333	4 333	88	+4
13	0.629 024	13 271	182	−2	0.725 500	9 783	208	−2	0.314 666	4 243	90	0
14	0.615 753	13 449	178	+1	0.735 283	9 572	211	−3	0.318 909	4 151	92	−5
15	+0.602 304	−13 622	−173	+4	+0.744 855	+ 9 359	−213	+1	+0.323 060	+4 058	− 93	−3
16	0.588 682	13 793	171	−4	0.754 214	9 143	216	+1	0.327 118	3 965	93	+1
17	0.574 889	13 959	166	−2	0.763 357	8 924	219	−1	0.331 083	3 869	96	−2
18	0.560 930	14 120	161	0	0.772 281	8 702	222	−4	0.334 952	3 774	95	+4
19	0.546 810	14 278	158	−3	0.780 983	8 477	225	−4	0.338 726	3 676	98	−2
20	0.532 532	14 430	152	+2	0.789 460	8 251	226	0	0.342 402	3 578	98	−1
21	+0.518 102	−14 578	−148	0	+0.797 711	+ 8 021	−230	−5	+0.345 980	+3 478	−100	−3
22	0.503 524	14 722	144	−3	0.805 732	7 790	231	−2	0.349 458	3 378	100	+1
23	0.488 802	14 860	138	+1	0.813 522	7 556	234	−4	0.352 836	3 277	101	+3
24	0.473 942	14 994	134	−1	0.821 078	7 321	235	−1	0.356 113	3 176	101	+4
25	0.458 948	15 124	130	−3	0.828 399	7 084	237	−1	0.359 289	3 072	104	−4
26	0.443 824	15 248	124	0	0.835 483	6 845	239	−1	0.362 361	2 970	102	+3
27	+0.428 576	−15 369	−121	−3	+0.842 328	+ 6 606	−239	+4	+0.365 331	+2 865	−105	−4
28	0.413 207	15 484	115	+3	0.848 934	6 364	242	−1	0.368 196	2 761	104	0
29	0.397 723	15 596	112	0	0.855 298	6 121	243	0	0.370 957	2 655	106	−1
30	0.382 127	15 703	107	+3	0.861 419	5 878	243	+5	0.373 612	2 550	105	+5
31	0.366 424	15 805	102	+5	0.867 297	5 632	246	0	0.376 162	2 444	106	+4
Juni 1	0.350 619	15 904	99	0	0.872 929	5 386	246	+3	0.378 606	2 336	108	−1
2	+0.334 715	−15 999	− 95	−1	+0.878 315	+ 5 138	−248	+2	+0.380 942	+2 229	−107	+4
3	0.318 716	16 088	89	+4	0.883 453	4 889	249	+3	0.383 171	2 121	108	+5
4	0.302 628	16 175	87	−2	0.888 342	4 639	250	+5	0.385 292	2 013	108	+4
5	0.286 453	16 256	81	+3	0.892 981	4 388	251	+3	0.387 305	1 903	110	−4
6	0.270 197	16 333	77	+2	0.897 369	4 134	254	−4	0.389 208	1 793	110	−5
7	0.253 864	16 406	73	−2	0.901 503	3 880	254	−1	0.391 001	1 682	111	−3
8	+0.237 458	−16 475	− 69	−4	+0.905 383	+ 3 625	−255	+1	+0.392 683	+1 572	−110	+4
9	0.220 983	16 538	63	0	0.909 008	3 368	257	+1	0.394 255	1 461	111	+3
10	0.204 445	16 598	60	−3	0.912 376	3 111	257	+5	0.395 716	1 349	112	−2
11	0.187 847	16 652	54	+1	0.915 487	2 853	258	+4	0.397 065	1 236	113	−5
12	0.171 195	−16 702	50	−1	0.918 340	+ 2 592	261	−3	0.398 301	+1 124	112	−1
13	+0.154 493		− 45	−3	+0.920 932		−260	+2	+0.399 425		−114	−4

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0^h Welt-Zeit	Mittleres Äquinoktium 1950.0											
	X			ΔX*)	*Y*			ΔY*)	*Z*			ΔZ*)
1939												
Juni 13	+0.154 493	−16 747	−45	−3	+0.920 932	+2 332	−260	+2	+0.399 425	+1 010	−114	−4
14	0.137 746	16 788	41	−4	0.923 264	2 070	262	0	0.400 435	897	113	+2
15	0.120 958	16 823	35	+2	0.925 334	1 808	262	+3	0.401 332	784	113	+4
16	0.104 135	16 853	30	+4	0.927 142	1 545	263	+1	0.402 116	669	115	−2
17	0.087 282	16 877	24	+5	0.928 687	1 281	264	−1	0.402 785	555	114	0
18	0.070 405	16 898	21	−3	0.929 968	1 017	264	0	0.403 340	441	114	+1
19	+0.053 507	−16 912	−14	+1	+0.930 985	+753	−264	+1	+0.403 781	+326	−115	−2
20	0.036 595	16 922	10	−1	0.931 738	489	264	0	0.404 107	212	114	+2
21	0.019 673	16 926	−4	+3	0.932 227	+224	265	−3	0.404 319	+98	114	+1
22	+0.002 747	16 925	+1	+5	0.932 451	−39	263	+4	0.404 417	−17	115	−3
23	−0.014 178	16 919	6	+5	0.932 412	302	263	+5	0.404 400	131	114	+1
24	0.031 097	16 909	10	+1	0.932 110	565	263	+4	0.404 269	244	113	+5
25	−0.048 006	−16 893	+16	+2	+0.931 545	−826	−261	+5	+0.404 025	−358	−114	0
26	0.064 899	16 874	19	−4	0.930 719	1 089	263	−4	0.403 667	471	113	0
27	0.081 773	16 850	24	−3	0.929 630	1 349	260	+1	0.403 196	585	114	−4
28	0.098 623	16 821	29	+2	0.928 281	1 610	261	−2	0.402 611	698	113	−1
29	0.115 444	16 787	34	+4	0.926 671	1 869	259	+3	0.401 913	810	112	+4
30	0.132 231	16 750	37	−1	0.924 802	2 128	259	+1	0.401 103	922	112	+3
Juli 1	−0.148 981	−16 708	+42	−1	+0.922 674	−2 387	−259	0	+0.400 181	−1 035	−113	−3
2	0.165 689	16 662	46	−2	0.920 287	2 644	257	+5	0.399 146	1 147	112	0
3	0.182 351	16 611	51	0	0.917 643	2 901	257	+4	0.397 999	1 258	111	+4
4	0.198 962	16 556	55	−1	0.914 742	3 158	257	+1	0.396 741	1 370	112	+1
5	0.215 518	16 496	60	−1	0.911 584	3 413	255	+5	0.395 371	1 480	110	+4
6	0.232 014	16 433	63	−5	0.908 171	3 668	255	+2	0.393 891	1 592	112	−3
7	−0.248 447	−16 364	+69	+1	+0.904 503	−3 923	−255	−1	+0.392 299	−1 702	−110	+3
8	0.264 811	16 290	74	+3	0.900 580	4 176	253	+3	0.390 597	1 811	109	+5
9	0.281 101	16 214	76	−4	0.896 404	4 428	252	+4	0.388 786	1 922	111	−2
10	0.297 315	16 131	83	+4	0.891 976	4 680	252	0	0.386 864	2 030	108	+4
11	0.313 446	16 044	87	+4	0.887 296	4 931	251	0	0.384 834	2 139	109	−1
12	0.329 490	15 952	92	+4	0.882 365	5 180	249	+4	0.382 695	2 248	109	−4
13	−0.345 442	−15 856	+96	0	+0.877 185	−5 428	−248	+2	+0.380 447	−2 355	−107	+2
14	0.361 298	15 755	101	−1	0.871 757	5 676	248	−3	0.378 092	2 462	107	+1
15	0.377 053	15 649	106	0	0.866 081	5 921	245	0	0.375 630	2 569	107	−1
16	0.392 702	15 537	112	+2	0.860 160	6 166	245	−4	0.373 061	2 674	105	+3
17	0.408 239	15 422	115	−5	0.853 994	6 407	241	+2	0.370 387	2 779	105	+1
18	0.423 661	15 302	120	−4	0.847 587	6 648	241	−4	0.367 608	2 883	104	−1
19	−0.438 963	−15 176	+126	+3	+0.840 939	−6 886	−238	−2	+0.364 725	−2 987	−104	−3
20	0.454 139	15 046	130	+2	0.834 053	7 122	236	−2	0.361 738	3 088	101	+4
21	0.469 185	14 912	134	−1	0.826 931	7 355	233	+1	0.358 650	3 189	101	+1
22	0.484 097	14 774	138	−3	0.819 576	7 586	231	0	0.355 461	3 290	101	−4
23	0.498 871	−14 632	142	−2	0.811 990	−7 815	229	−1	0.352 171	−3 389	99	0
24	−0.513 503		+147	+3	+0.804 175		−225	+2	+0.348 782		−97	+3

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Welt-Zeit	Mittleres Äquinoktium 1950.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Juli 24	−0.513 503	−14 485	+147	+3	+0.804 175	−8 040	−225	+2	+0.348 782	−3 486	−97	+3
25	0.527 988	14 335	150	0	0.796 135	8 265	225	−4	0.345 296	3 584	98	−4
26	0.542 323	14 181	154	−2	0.787 870	8 485	220	+3	0.341 712	3 680	96	−1
27	0.556 504	14 024	157	−4	0.779 385	8 704	219	−1	0.338 032	3 775	95	+2
28	0.570 528	13 862	162	−1	0.770 681	8 921	217	−3	0.334 257	3 868	93	+4
29	0.584 390	13 698	164	−5	0.761 760	9 134	213	+2	0.330 389	3 962	94	−2
30	−0.598 088	−13 529	+169	0	+0.752 626	−9 346	−212	−2	+0.326 427	−4 053	−91	+2
31	0.611 617	13 357	172	+1	0.743 280	9 555	209	0	0.322 374	4 145	92	−3
Aug. 1	0.624 974	13 181	176	+4	0.733 725	9 762	207	0	0.318 229	4 234	89	+4
2	0.638 155	13 001	180	+4	0.723 963	9 966	204	+3	0.313 995	4 322	88	+4
3	0.651 156	12 819	182	−1	0.713 997	10 167	201	+4	0.309 673	4 411	89	−3
4	0.663 975	12 631	188	+4	0.703 830	10 367	200	−1	0.305 262	4 496	85	+4
5	−0.676 606	−12 442	+189	−4	+0.693 463	−10 563	−196	+2	+0.300 766	−4 582	−86	−4
6	0.689 048	12 248	194	0	0.682 900	10 757	194	−1	0.296 184	4 667	85	−5
7	0.701 296	12 050	198	+4	0.672 143	10 949	192	−4	0.291 517	4 749	82	+2
8	0.713 346	11 849	201	+3	0.661 194	11 137	188	0	0.286 768	4 831	82	−2
9	0.725 195	11 644	205	+4	0.650 057	11 323	186	−2	0.281 937	4 912	81	−2
10	0.736 839	11 435	209	+5	0.638 734	11 506	183	−1	0.277 025	4 991	79	+2
11	−0.748 274	−11 223	+212	0	+0.627 228	−11 686	−180	0	+0.272 034	−5 068	−77	+4
12	0.759 497	11 007	216	0	0.615 542	11 862	176	+3	0.266 966	5 146	78	−3
13	0.770 504	10 787	220	+1	0.603 680	12 036	174	−2	0.261 820	5 220	74	+5
14	0.781 291	10 564	223	−1	0.591 644	12 206	170	0	0.256 600	5 293	73	+3
15	0.791 855	10 337	227	+1	0.579 438	12 372	166	+3	0.251 307	5 366	73	−4
16	0.802 192	10 107	230	+2	0.567 066	12 534	162	+4	0.245 941	5 436	70	0
17	−0.812 299	−9 873	+234	+5	+0.554 532	−12 693	−159	+1	+0.240 505	−5 505	−69	+1
18	0.822 172	9 637	236	+2	0.541 839	12 847	154	+4	0.235 000	5 571	66	+5
19	0.831 809	9 398	239	+3	0.528 992	12 998	151	+1	0.229 429	5 637	66	+1
20	0.841 207	9 156	242	+5	0.515 994	13 144	146	+3	0.223 792	5 700	63	+5
21	0.850 363	8 912	244	+3	0.502 850	13 287	143	+1	0.218 092	5 762	62	+2
22	0.859 275	8 665	247	+3	0.489 563	13 425	138	+4	0.212 330	5 822	60	+2
23	−0.867 940	−8 417	+248	−2	+0.476 138	−13 560	−135	0	+0.206 508	−5 881	−59	−1
24	0.876 357	8 165	252	+2	0.462 578	13 691	131	−2	0.200 627	5 938	57	+1
25	0.884 522	7 913	252	−4	0.448 887	13 819	128	−4	0.194 689	5 993	55	+5
26	0.892 435	7 657	256	+2	0.435 068	13 942	123	+2	0.188 696	6 046	53	+4
27	0.900 092	7 400	257	+2	0.421 126	14 061	119	+5	0.182 650	6 099	53	−3
28	0.907 492	7 140	260	+5	0.407 065	14 177	116	+1	0.176 551	6 149	50	0
29	−0.914 632	−6 878	+262	+4	+0.392 888	−14 289	−112	0	+0.170 402	−6 198	−49	−1
30	0.921 510	6 615	263	−2	0.378 599	14 398	109	−1	0.164 204	6 245	47	+1
31	0.928 125	6 350	265	−2	0.364 201	14 502	104	+4	0.157 959	6 290	45	+2
Sept. 1	0.934 475	6 082	268	+3	0.349 699	14 602	100	+5	0.151 669	6 334	44	0
2	0.940 557	−5 812	270	+3	0.335 097	−14 700	98	−1	0.145 335	−6 376	42	0
3	−0.946 369		+271	−2	+0.320 397		−92	+5	+0.138 959		−40	−1

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0h Welt-Zeit	Mittleres Äquinoktium 1950.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Sept. 3	−0.946 369	−5 541	+271	−2	+0.320 397	−14 792	−92	+5	+0.138 959	−6 416	−40	−1
4	0.951 910	5 268	273	−2	0.305 605	14 881	89	+2	0.132 543	6 455	39	−5
5	0.957 178	4 992	276	+1	0.290 724	14 967	86	−1	0.126 088	6 492	37	−5
6	0.962 170	4 716	276	−4	0.275 757	15 047	80	+5	0.119 596	6 527	35	−2
7	0.966 886	4 436	280	+3	0.260 710	15 124	77	+2	0.113 069	6 560	33	−1
8	0.971 322	4 155	281	+2	0.245 586	15 197	73	−2	0.106 509	6 591	31	−2
9	−0.975 477	−3 872	+283	0	+0.230 389	−15 266	−69	−3	+0.099 918	−6 621	−30	−5
10	0.979 349	3 588	284	−3	0.215 123	15 329	63	+3	0.093 297	6 649	28	−5
11	0.982 937	3 301	287	+1	0.199 794	15 388	59	+1	0.086 648	6 674	25	0
12	0.986 238	3 014	287	−3	0.184 406	15 443	55	−4	0.079 974	6 697	23	+1
13	0.989 252	2 725	289	0	0.168 963	15 493	50	−4	0.073 277	6 719	22	−3
14	0.991 977	2 434	291	+4	0.153 470	15 537	44	0	0.066 558	6 738	19	−1
15	−0.994 411	−2 143	+291	0	+0.137 933	−15 578	−41	−4	+0.059 820	−6 756	−18	−3
16	0.996 554	1 852	291	−3	0.122 355	15 612	34	+4	0.053 064	6 770	14	+4
17	0.998 406	1 559	293	+1	0.106 743	15 642	30	+4	0.046 294	6 784	14	−1
18	0.999 965	1 267	292	−3	0.091 101	15 667	25	+3	0.039 510	6 794	10	+4
19	1.001 232	974	293	0	0.075 434	15 688	21	−1	0.032 716	6 804	10	−2
20	1.002 206	681	293	+1	0.059 746	15 704	16	−1	0.025 912	6 810	6	+2
21	−1.002 887	− 388	+293	+1	+0.044 042	−15 715	−11	0	+0.019 102	−6 816	− 6	−3
22	1.003 275	− 95	293	+1	0.028 327	15 722	7	−3	0.012 286	6 819	3	0
23	1.003 370	+ 198	293	+2	+0.012 605	15 725	− 3	−4	+0.005 467	6 820	− 1	+1
24	1.003 172	492	294	+5	−0.003 120	15 723	+ 2	0	−0.001 353	6 819	+ 1	+1
25	1.002 680	784	292	−1	0.018 843	15 716	7	+4	0.008 172	6 817	2	−2
26	1.001 896	1 077	293	+2	0.034 559	15 705	11	+2	0.014 989	6 812	5	+1
27	−1.000 819	+1 370	+293	+4	−0.050 264	−15 690	+15	−2	−0.021 801	−6 806	+ 6	+1
28	0.999 449	1 663	293	+3	0.065 954	15 671	19	−4	0.028 607	6 797	9	+4
29	0.997 786	1 954	291	−4	0.081 625	15 647	24	−2	0.035 404	6 787	10	+1
30	0.995 832	2 247	293	+1	0.097 272	15 619	28	−2	0.042 191	6 775	12	+1
Okt. 1	0.993 585	2 538	291	−4	0.112 891	15 586	33	0	0.048 966	6 760	15	+4
2	0.991 047	2 829	291	−3	0.128 477	15 550	36	−3	0.055 726	6 745	15	−3
3	−0.988 218	+3 121	+292	+3	−0.144 027	−15 508	+42	+2	−0.062 471	−6 727	+18	−1
4	0.985 097	3 411	290	−1	0.159 535	15 463	45	0	0.069 198	6 706	21	+3
5	0.981 686	3 702	291	+2	0.174 998	15 412	51	+5	0.075 904	6 685	21	−5
6	0.977 984	3 991	289	−1	0.190 410	15 357	55	+2	0.082 589	6 661	24	−3
7	0.973 993	4 281	290	+4	0.205 767	15 299	58	−4	0.089 250	6 635	26	−2
8	0.969 712	4 570	289	+2	0.221 066	15 234	65	+4	0.095 885	6 607	28	−1
9	−0.965 142	+4 857	+287	−2	−0.236 300	−15 164	+70	+5	−0.102 492	−6 577	+30	0
10	0.960 285	5 145	288	+2	0.251 464	15 091	73	−3	0.109 069	6 545	32	+1
11	0.955 140	5 430	285	−4	0.266 555	15 012	79	−2	0.115 614	6 510	35	+5
12	0.949 710	5 715	285	−1	0.281 567	14 928	84	−1	0.122 124	6 474	36	+3
13	0.943 995	+5 997	282	−3	0.296 495	−14 839	89	0	0.128 598	−6 435	39	+5
14	−0.937 998		+282	+3	−0.311 334		+94	−2	−0.135 033		+41	+3

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0^h Welt-Zeit	Mittleres Äquinoktium 1950.0											
	X			ΔX*)	Y			ΔY*)	Z			ΔZ*)
1939												
Okt. 14	−0.937 998	+ 6 279	+282	+3	−0.311 334	−14 745	+ 94	−2	−0.135 033	−6 394	+ 41	+3
15	0.931 719	6 558	279	+1	0.326 079	14 647	98	−5	0.141 427	6 352	42	−3
16	0.925 161	6 835	277	+1	0.340 726	14 544	103	−4	0.147 779	6 307	45	−1
17	0.918 326	7 110	275	+2	0.355 270	14 436	108	0	0.154 086	6 261	46	−3
18	0.911 216	7 383	273	+2	0.369 706	14 324	112	+1	0.160 347	6 212	49	+2
19	0.903 833	7 653	270	−3	0.384 030	14 207	117	+4	0.166 559	6 162	50	+1
20	−0.896 180	+ 7 920	+267	−5	−0.398 237	−14 087	+120	+1	−0.172 721	−6 109	+ 53	+3
21	0.888 260	8 187	267	+2	0.412 324	13 961	126	+4	0.178 830	6 056	53	−2
22	0.880 073	8 449	262	−5	0.426 285	13 833	128	−4	0.184 886	6 000	56	+2
23	0.871 624	8 710	261	−2	0.440 118	13 700	133	−3	0.190 886	5 942	58	+4
24	0.862 914	8 968	258	−2	0.453 818	13 563	137	−2	0.196 828	5 883	59	+2
25	0.853 946	9 223	255	−1	0.467 381	13 422	141	−3	0.202 711	5 822	61	+2
26	−0.844 723	+ 9 477	+254	+4	−0.480 803	−13 278	+144	−4	−0.208 533	−5 759	+ 63	+3
27	0.835 246	9 727	250	−1	0.494 081	13 129	149	+1	0.214 292	5 695	64	+1
28	0.825 519	9 974	247	−3	0.507 210	12 976	153	+2	0.219 987	5 629	66	+2
29	0.815 545	10 220	246	+2	0.520 186	12 821	155	−4	0.225 616	5 561	68	+4
30	0.805 325	10 462	242	−2	0.533 007	12 661	160	0	0.231 177	5 491	70	+3
31	0.794 863	10 702	240	−1	0.545 668	12 497	164	+2	0.236 668	5 421	70	−4
Nov. 1	−0.784 161	+10 939	+237	−3	−0.558 165	−12 330	+167	+1	−0.242 089	−5 348	+ 73	−1
2	0.773 222	11 173	234	−3	0.570 495	12 158	172	+3	0.247 437	5 274	74	0
3	0.762 049	11 405	232	+1	0.582 653	11 984	174	−4	0.252 711	5 197	77	+4
4	0.750 644	11 634	229	+1	0.594 637	11 804	180	+1	0.257 908	5 120	77	0
5	0.739 010	11 859	225	−3	0.606 441	11 622	182	−5	0.263 028	5 040	80	+4
6	0.727 151	12 082	223	0	0.618 063	11 435	187	−1	0.268 068	4 959	81	+3
7	−0.715 069	+12 301	+219	−3	−0.629 498	−11 243	+192	+3	−0.273 027	−4 876	+ 83	+4
8	0.702 768	12 516	215	−5	0.640 741	11 049	194	−4	0.277 903	4 791	85	+5
9	0.690 252	12 728	212	0	0.651 790	10 850	199	−1	0.282 694	4 705	86	+2
10	0.677 524	12 937	209	+3	0.662 640	10 647	203	−1	0.287 399	4 617	88	+2
11	0.664 587	13 140	203	−4	0.673 287	10 441	206	−4	0.292 016	4 528	89	+1
12	0.651 447	13 340	200	−2	0.683 728	10 231	210	−3	0.296 544	4 436	92	+4
13	−0.638 107	+13 535	+195	−3	−0.693 959	−10 018	+213	−2	−0.300 980	−4 344	+ 92	−2
14	0.624 572	13 726	191	−1	0.703 977	9 801	217	+3	0.305 324	4 251	93	−4
15	0.610 846	13 913	187	+1	0.713 778	9 581	220	+4	0.309 575	4 155	96	+2
16	0.596 933	14 095	182	−1	0.723 359	9 358	223	+1	0.313 730	4 059	96	0
17	0.582 838	14 272	177	−3	0.732 717	9 133	225	−3	0.317 789	3 961	98	+2
18	0.568 566	14 446	174	+2	0.741 850	8 905	228	−3	0.321 750	3 862	99	0
19	−0.554 120	+14 614	+168	−2	−0.750 755	− 8 674	+231	0	−0.325 612	−3 762	+100	−2
20	0.539 506	14 778	164	0	0.759 429	8 440	234	+4	0.329 374	3 661	101	−4
21	0.524 728	14 938	160	+4	0.767 869	8 204	236	+2	0.333 035	3 559	102	−4
22	0.509 790	15 093	155	+4	0.776 073	7 966	238	0	0.336 594	3 456	103	−3
23	0.494 697	+15 244	151	+4	0.784 039	− 7 725	241	0	0.340 050	−3 351	105	+2
24	−0.479 453		+146	−1	−0.791 764		+243	−2	−0.343 401		+105	+1

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

0ʰ Welt-Zeit	Mittleres Äquinoktium 1950.0											
	X			ΔX*)	*Y*			ΔY*)	*Z*			ΔZ*)
1939												
Nov. 24	−0.479 453	+15 390	+146	−1	−0.791 764	−7 482	+243	−2	−0.343 401	−3 246	+105	+1
25	0.464 063	15 531	141	−5	0.799 246	7 238	244	−5	0.346 647	3 139	107	+2
26	0.448 532	15 668	137	−4	0.806 484	6 990	248	+2	0.349 786	3 033	106	−4
27	0.432 864	15 801	133	−2	0.813 474	6 741	249	−1	0.352 819	2 924	109	+3
28	0.417 063	15 929	128	−3	0.820 215	6 490	251	−3	0.355 743	2 815	109	+1
29	0.401 134	16 053	124	−3	0.826 705	6 237	253	−2	0.358 558	2 705	110	0
30	−0.385 081	+16 172	+119	−5	−0.832 942	−5 981	+256	+1	−0.361 263	−2 594	+111	−1
Dez. 1	0.368 909	16 287	115	−4	0.838 923	5 724	257	−2	0.363 857	2 483	111	−3
2	0.352 622	16 396	109	−5	0.844 647	5 464	260	0	0.366 340	2 369	114	+4
3	0.336 226	16 503	107	+4	0.850 111	5 203	261	−2	0.368 709	2 256	113	−2
4	0.319 723	16 603	100	−3	0.855 314	4 938	265	+4	0.370 965	2 141	115	−1
5	0.303 120	16 698	95	−5	0.860 252	4 673	265	−2	0.373 106	2 026	115	−5
6	−0.286 422	+16 788	+ 90	−2	−0.864 925	−4 405	+268	+1	−0.375 132	−1 910	+116	−4
7	0.269 634	16 874	86	+4	0.869 330	4 135	270	+1	0.377 042	1 793	117	0
8	0.252 760	16 953	79	−1	0.873 465	3 864	271	−1	0.378 835	1 675	118	+2
9	0.235 807	17 027	74	+1	0.877 329	3 591	273	0	0.380 510	1 557	118	+1
10	0.218 780	17 096	69	+4	0.880 920	3 316	275	+1	0.382 067	1 438	119	+3
11	0.201 684	17 159	63	+1	0.884 236	3 041	275	−5	0.383 505	1 318	120	+4
12	−0.184 525	+17 215	+ 56	−3	−0.887 277	−2 765	+276	−4	−0.384 823	−1 199	+119	0
13	0.167 310	17 267	52	+4	0.890 042	2 487	278	+2	0.386 022	1 078	121	+4
14	0.150 043	17 313	46	+5	0.892 529	2 208	279	+4	0.387 100	958	120	0
15	0.132 730	17 354	41	+4	0.894 737	1 930	278	−3	0.388 058	837	121	+1
16	0.115 376	17 388	34	−4	0.896 667	1 651	279	−2	0.388 895	716	121	−1
17	0.097 988	17 417	29	−5	0.898 318	1 371	280	+1	0.389 611	595	121	−3
18	−0.080 571	+17 440	+ 23	−5	−0.899 689	−1 091	+280	+1	−0.390 206	− 474	+121	−3
19	0.063 131	17 459	19	0	0.900 780	811	280	−2	0.390 680	352	122	−1
20	0.045 672	17 471	12	−4	0.901 591	532	279	−5	0.391 032	231	121	−5
21	0.028 201	17 479	8	0	0.902 123	− 251	281	+1	0.391 263	− 110	121	−5
22	−0.010 722	17 481	+ 2	−3	0.902 374	+ 28	279	−4	0.391 373	+ 11	121	−2
23	+0.006 759	17 477	− 4	−5	0.902 346	308	280	0	0.391 362	133	122	+4
24	+0.024 236	+17 469	− 8	0	−0.902 038	+ 587	+279	−2	−0.391 229	+ 255	+122	+4
25	0.041 705	17 456	13	+1	0.901 451	866	279	−2	0.390 974	375	120	−4
26	0.059 161	17 437	19	−2	0.900 585	1 144	278	−3	0.390 599	496	121	−1
27	0.076 598	17 414	23	+1	0.899 441	1 423	279	+1	0.390 103	617	121	0
28	0.094 012	17 385	29	−1	0.898 018	1 700	277	−2	0.389 486	738	121	0
29	0.111 397	17 352	33	+1	0.896 318	1 979	279	+4	0.388 748	858	120	−3
30	+0.128 749	+17 313	− 39	−1	−0.894 339	+2 255	+276	−4	−0.387 890	+ 979	+121	0
31	0.146 062	+17 270	43	+1	0.892 084	+2 533	278	+2	0.386 911	+1 099	120	−3
32	+0.163 332		− 50	−5	−0.889 551		+276	−2	−0.385 812		+120	−3

*) ΔX, ΔY, ΔZ sind in Einheiten der 7. Dezimale gegeben.

Mittleres Äquinoktium 1950.0

MERKUR 1939

0^h Welt-Zeit	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite	0^h Welt-Zeit	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite
1939		°	°	°	1939		°	°	°
Jan. −3	9.5565	158.63	−0.14	+6.55	Juli 1	9.6139	195.32	−0.19	+3.77
+2	9.5900	180.11	−0.21	+5.19	6	9.6376	212.02	−0.11	+1.91
7	9.6188	198.60	−0.18	+3.42	11	9.6547	227.18	0.00	+0.07
12	9.6413	214.96	−0.09	+1.56	16	9.6651	241.41	+0.10	−1.66
17	9.6572	229.91	+0.02	−0.26	21	9.6690	255.20	+0.18	−3.24
22	9.6664	244.02	+0.12	−1.97	26	9.6664	268.99	+0.21	−4.63
27	9.6690	257.78	+0.19	−3.52	31	9.6572	283.22	+0.20	−5.78
Febr. 1	9.6651	271.62	+0.21	−4.87	Aug. 5	9.6413	298.34	+0.13	−6.61
6	9.6547	285.97	+0.19	−5.96	10	9.6188	314.90	+0.02	−7.00
11	9.6376	301.32	+0.12	−6.72	15	9.5900	333.57	−0.11	−6.74
16	9.6138	318.23	0.00	−7.00	20	9.5565	355.07	−0.21	−5.58
21	9.5840	337.36	−0.14	−6.60	25	9.5227	20.10	−0.18	−3.26
26	9.5500	359.49	−0.21	−5.24	30	9.4965	48.79	+0.01	+0.13
März 3	9.5169	25.22	−0.15	−2.70	Sept. 4	9.4880	79.96	+0.19	+3.75
8	9.4933	54.51	+0.05	+0.83	9	9.5011	110.99	+0.17	+6.26
13	9.4889	85.88	+0.21	+4.34	14	9.5298	139.26	−0.01	+7.00
18	9.5056	116.57	+0.14	+6.53	19	9.5641	163.62	−0.17	+6.31
23	9.5361	144.13	−0.05	+6.96	24	9.5968	184.37	−0.21	+4.82
28	9.5705	167.77	−0.19	+6.07	29	9.6243	202.33	−0.17	+3.02
April 2	9.6024	187.93	−0.21	+4.50	Okt. 4	9.6454	218.33	−0.07	+1.15
7	9.6288	205.46	−0.15	+2.67	9	9.6597	233.04	+0.04	−0.65
12	9.6486	221.17	−0.05	+0.81	14	9.6675	247.04	+0.13	−2.32
17	9.6617	235.71	+0.06	−0.97	19	9.6687	260.78	+0.20	−3.83
22	9.6682	249.63	+0.15	−2.62	24	9.6634	274.69	+0.21	−5.13
27	9.6682	263.37	+0.20	−4.09	29	9.6515	289.22	+0.18	−6.16
Mai 2	9.6617	277.36	+0.21	−5.35	Nov. 3	9.6330	304.86	+0.09	−6.83
7	9.6486	292.06	+0.17	−6.32	8	9.6078	322.19	−0.03	−6.98
12	9.6287	307.96	+0.07	−6.90	13	9.5768	341.91	−0.16	−6.40
17	9.6024	325.69	−0.06	−6.94	18	9.5424	4.78	−0.21	−4.79
22	9.5705	345.95	−0.18	−6.18	23	9.5105	31.34	−0.12	−1.99
27	9.5360	9.48	−0.21	−4.35	28	9.4905	61.27	+0.10	+1.64
Juni 1	9.5055	36.74	−0.08	−1.35	Dez. 3	9.4908	92.75	+0.21	+4.97
6	9.4888	67.14	+0.13	+2.34	8	9.5114	122.91	+0.11	+6.77
11	9.4934	98.60	+0.21	+5.44	13	9.5435	149.63	−0.09	+6.86
16	9.5169	128.22	+0.07	+6.91	18	9.5778	172.45	−0.20	+5.77
21	9.5500	154.20	−0.12	+6.72	23	9.6087	191.96	−0.20	+4.11
26	9.5840	176.33	−0.21	+5.49	28	9.6337	209.02	−0.13	+2.26
Juli 1	9.6139	195.32	−0.19	+3.77					

$\Omega = 47^\circ.739 \qquad i = 7^\circ.004 \qquad m = \frac{1}{6\,000\,000}$

Mittleres Äquinoktium 1950.0

0^h Welt-Zeit	Julian. Zeit	log r	Helioz. Länge	Red. auf d. Bahn	Heliozentr. Breite	log R	Länge
		VENUS 1939				ERDE 1939	
1939			°	in 0.001 °	°		°
Jan. −3	2429 260.5	9.85645	118.384	+50	+2.278	9.99271	95.750
+7	270.5	9.85639	134.629	+45	+2.891	9.99268	105.942
17	280.5	9.85656	150.883	+26	+3.273	9.99288	116.131
27	290.5	9.85695	167.125	− 2	+3.394	9.99329	126.306
Febr. 6	300.5	9.85752	183.329	−28	+3.245	9.99391	136.456
16	2429 310.5	9.85824	199.476	−46	+2.841	9.99471	146.573
26	320.5	9.85904	215.553	−50	+2.215	9.99567	156.649
März 8	330.5	9.85986	231.554	−38	+1.420	9.99676	166.678
18	340.5	9.86064	247.484	−15	+0.518	9.99793	176.654
28	350.5	9.86131	263.356	+12	−0.420	9.99917	186.575
April 7	2429 360.5	9.86183	279.188	+36	−1.324	0.00042	196.439
17	370.5	9.86216	294.999	+49	−2.126	0.00165	206.247
27	380.5	9.86227	310.809	+48	−2.766	0.00283	216.001
Mai 7	390.5	9.86216	326.634	+32	−3.197	0.00392	225.703
17	400.5	9.86183	342.484	+ 7	−3.387	0.00489	235.359
27	2429 410.5	9.86131	358.368	−21	−3.319	0.00571	244.976
Juni 6	420.5	9.86063	14.289	−42	−2.997	0.00638	254.559
16	430.5	9.85986	30.251	−50	−2.443	0.00686	264.117
26	440.5	9.85904	46.257	−44	−1.699	0.00714	273.659
Juli 6	450.5	9.85824	62.310	−23	−0.819	0.00722	283.192
16	2429 460.5	9.85753	78.412	+ 4	+0.128	0.00709	292.727
26	470.5	9.85695	94.563	+30	+1.067	0.00677	302.271
Aug. 5	480.5	9.85656	110.760	+47	+1.924	0.00625	311.834
15	490.5	9.85639	126.993	+49	+2.629	0.00555	321.424
25	500.5	9.85645	143.245	+36	+3.125	0.00469	331.049
Sept. 4	2429 510.5	9.85674	159.495	+12	+3.371	0.00369	340.715
14	520.5	9.85724	175.720	−16	+3.348	0.00258	350.428
24	530.5	9.85789	191.896	−39	+3.061	0.00139	0.193
Okt. 4	540.5	9.85866	208.006	−50	+2.534	0.00015	10.013
14	550.5	9.85948	224.042	−45	+1.811	9.99890	19.889
24	2429 560.5	9.86029	240.004	−27	+0.951	9.99768	29.822
Nov. 3	570.5	9.86102	255.901	− 1	+0.021	9.99652	39.810
13	580.5	9.86161	271.750	+26	−0.908	9.99546	49.849
23	590.5	9.86203	287.568	+45	−1.766	9.99453	59.934
Dez. 3	600.5	9.86225	303.377	+50	−2.489	9.99376	70.058
13	2429 610.5	9.86224	319.193	+41	−3.023	9.99319	80.214
23	620.5	9.86201	335.030	+19	−3.329	9.99282	90.392
33	2429 630.5	9.86157	350.897	− 8	−3.383	9.99267	100.583

Venus: $\Omega = 76\overset{\circ}{.}230$ $i = 3\overset{\circ}{.}394$ $m = \frac{1}{408\,000}$

Erde: $m = \frac{1}{329\,390}$

Mittleres Äquinoktium 1950.0

0h Welt-Zeit	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite
	MARS 1939				JUPITER 1939			
1939		°	in 0.001	°		°	in 0.0001	°
Jan. −3	0.21350	190.405	−15	+1.160	0.698376	338.9993	+66	−1.1218
+7	0.21138	194.958	14	1.042	0.698190	339.9009	65	1.1323
17	0.20904	199.557	13	0.916	0.698009	340.8032	63	1.1424
27	0.20648	204.209	11	0.782	0.697832	341.7063	62	1.1523
Febr. 6	0.20371	208.917	10	0.642	0.697659	342.6102	60	1.1619
16	0.20076	213.688	− 8	+0.495	0.697490	343.5147	+59	−1.1712
26	0.19762	218.526	5	0.343	0.697326	344.4200	58	1.1803
März 8	0.19433	223.435	− 3	0.186	0.697166	345.3259	56	1.1890
18	0.19089	228.422	0	+0.025	0.697010	346.2325	55	1.1975
28	0.18734	233.489	+ 2	−0.138	0.696859	347.1398	53	1.2057
April 7	0.18368	238.642	+ 5	−0.304	0.696712	348.0477	+52	−1.2135
17	0.17996	243.882	7	0.469	0.696569	348.9562	50	1.2211
27	0.17620	249.214	10	0.634	0.696432	349.8653	48	1.2284
Mai 7	0.17243	254.640	12	0.795	0.696299	350.7749	46	1.2353
17	0.16869	260.161	13	0.952	0.696170	351.6851	44	1.2420
27	0.16502	265.778	+14	−1.103	0.696046	352.5959	+42	−1.2483
Juni 6	0.16145	271.489	15	1.246	0.695927	353.5072	40	1.2544
16	0.15802	277.294	15	1.378	0.695812	354.4190	38	1.2601
26	0.15479	283.190	14	1.497	0.695703	355.3312	36	1.2655
Juli 6	0.15178	289.171	13	1.603	0.695598	356.2439	34	1.2706
16	0.14905	295.233	+11	−1.691	0.695498	357.1571	+32	−1.2754
26	0.14663	301.368	9	1.762	0.695403	358.0707	30	1.2798
Aug. 5	0.14456	307.567	6	1.813	0.695313	358.9846	28	1.2839
15	0.14287	313.820	+ 3	1.843	0.695227	359.8990	26	1.2877
25	0.14160	320.116	0	1.851	0.695147	0.8137	23	1.2912
Sept. 4	0.14075	326.443	− 4	−1.836	0.695072	1.7287	+21	−1.2943
14	0.14036	332.788	7	1.799	0.695002	2.6440	19	1.2971
24	0.14042	339.137	10	1.740	0.694936	3.5596	17	1.2996
Okt. 4	0.14093	345.478	12	1.660	0.694876	4.4755	14	1.3018
14	0.14188	351.797	14	1.560	0.694821	5.3916	12	1.3036
24	0.14327	358.081	−15	−1.441	0.694771	6.3080	+ 9	−1.3051
Nov. 3	0.14505	4.319	15	1.306	0.694727	7.2246	7	1.3062
13	0.14722	10.499	15	1.157	0.694687	8.1413	5	1.3070
23	0.14973	16.613	14	0.997	0.694653	9.0582	+ 2	1.3075
Dez. 3	0.15254	22.652	12	0.827	0.694623	9.9752	0	1.3077
13	0.15561	28.609	−10	−0.651	0.694599	10.8924	− 2	−1.3075
23	0.15890	34.478	7	0.470	0.694580	11.8097	5	1.3070
33	0.16237	40.256	− 5	−0.288	0.694566	12.7270	− 7	−1.3061

Mars: ☊ $= 49^\circ.172$ $i = 1^\circ.850$ $m = \frac{1}{3\,093\,500}$

Jupiter: ☊ $= 99^\circ.9528$ $i = 1^\circ.3059$ $m = \frac{1}{1047.35}$

Mittleres Äquinoktium 1950.0

SATURN 1939

0^h Welt-Zeit	Julian. Zeit	log r	Heliozentrische Länge	Red. auf die Bahn	Heliozentrische Breite
	d		°	in 0.0001″	°
1938 Dez. 8	2429 240.5	0.972690	16.8355	+ 60	−2.4713
1939 Jan. 17	280.5	0.972167	18.2204	47	2.4773
Febr. 26	320.5	0.971647	19.6086	34	2.4819
April 7	360.5	0.971130	21.0002	21	−2.4850
Mai 17	400.5	0.970617	22.3952	+ 8	2.4866
Juni 26	440.5	0.970107	23.7935	− 5	2.4868
Aug. 5	480.5	0.969602	25.1950	19	−2.4855
Sept. 14	520.5	0.969100	26.5999	32	2.4827
Okt. 24	560.5	0.968603	28.0079	45	2.4783
Dez. 3	2429 600.5	0.968110	29.4192	− 58	−2.4725

$\Omega = 113^\circ.2251 \qquad i = 2^\circ.4903 \qquad m = \frac{1}{3\,501.6}$

URANUS 1939

0^h Welt-Zeit	Julian. Zeit	log r	Heliozentrische Länge	Red. auf die Bahn	Heliozentrische Breite
	d		°	in 0.°001	°
1938 Dez. 8	2429 240.5	1.29381	46.278	− 2	−0.358
1939 Jan. 17	280.5	1.29368	46.725	2	0.352
Febr. 26	320.5	1.29355	47.172	2	0.347
April 7	360.5	1.29341	47.619	− 2	−0.341
Mai 17	400.5	1.29328	48.067	2	0.336
Juni 26	440.5	1.29315	48.515	2	0.331
Aug. 5	480.5	1.29301	48.964	− 2	−0.325
Sept. 14	520.5	1.29288	49.413	2	0.320
Okt. 24	560.5	1.29274	49.862	2	0.314
Dez. 3	2429 600.5	1.29260	50.311	− 2	−0.309

$\Omega = 73^\circ.745 \qquad i = 0^\circ.773 \qquad m = \frac{1}{22\,869}$

NEPTUN 1939

0^h Welt-Zeit	Julian. Zeit	log r	Heliozentrische Länge	Red. auf die Bahn	Heliozentrische Breite
	d		°	in 0.°001	°
1938 Dez. 8	2429 240.5	1.48025	171.546	+ 14	+1.148
1939 Jan. 17	280.5	1.48026	171.782	14	1.154
Febr. 26	320.5	1.48027	172.019	14	1.159
April 7	360.5	1.48028	172.255	+ 14	+1.165
Mai 17	400.5	1.48030	172.491	14	1.170
Juni 26	440.5	1.48031	172.727	14	1.176
Aug. 5	480.5	1.48032	172.963	+ 14	+1.181
Sept. 14	520.5	1.48033	173.199	14	1.187
Okt. 24	560.5	1.48035	173.435	14	1.192
Dez. 3	2429 600.5	1.48036	173.671	+ 14	+1.198

$\Omega = 131^\circ.230 \qquad i = 1^\circ.775 \qquad m = \frac{1}{19\,314}$

PLUTO 1939

0^h Welt-Zeit	Julian. Zeit	log r	Heliozentrische Länge	Red. auf die Bahn	Heliozentrische Breite
	d		°	in 0.°001	°
1938 Dez. 8	2429 240.5	1.59271	120.357	+486	+3.287
1939 Febr. 26	320.5	1.59211	120.657	499	3.378
Mai 17	400.5	1.59150	120.958	512	3.469
Aug. 5	480.5	1.59089	121.261	525	3.560
Okt. 24	2429 560.5	1.59028	121.564	+538	+3.651

$\Omega = 109^\circ.633 \qquad i = 17^\circ.144 \qquad m \approx \frac{1}{3\,300\,000}$

Mittlere und Scheinbare Sternörter 1939

Reduktionsgrößen



Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.s0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ' "	"	
905	[2 Ceti]	4.62	A 0	0 0 36.955	+3.0731	+ 12	−17 40 31.99	+20.040	− 4
1	α Androm.	2.15	A 0 p	0 5 13.793	+3.1004	+ 107	+28 45 13.31	+19.877	− 161
2	β Cassiopeiae	2.42	F 5	0 5 54.586	+3.1977	+ 678	+58 48 48.02	+19.857	− 180
3	ε Phoenicis	3.94	K 0	0 6 19.130	+3.0447	+ 99	−46 5 3.19	+19.844	− 192
4	[22 Androm.]	5.08	F 0	0 7 8.521	+3.1166	+ 8	+45 43 58.00	+20.031	− 3
5	[κ² Sculptoris]	5.56	K 0	0 8 28.727	+3.0470	+ 4	−28 8 23.10	+20.036	+ 6
6	[ϑ Sculptoris]	5.19	F 5	0 8 37.990	+3.0476	+ 104	−35 28 28.60	+20.153	+ 124
7	γ Pegasi	2.87	B 2	0 10 5.502	+3.0887	+ 1	+14 50 39.84	+20.011	− 14
8	†[Br 6]	6.23	B 9	0 12 44.333	+3.3918	+ 68	+76 36 42.99	+20.014	+ 1
9	ι Ceti	3.75	K 0	0 16 19.188	+3.0563	− 15	− 9 9 43.26	+19.961	− 32
10	ζ Tucanae	4.34	F 8	0 16 54.221	+3.1287	+2690	−65 14 0.28	+21.143	+1154
11	β Hydri	2.90	G 0	0 22 34.652	+3.1667	+6913	−77 35 52.03	+20.265	+ 318
12	α Phoenicis	2.44	K 0	0 23 16.295	+2.9651	+ 168	−42 38 14.78	+19.532	− 409
13	12 Ceti	6.04	K 5	0 26 55.544	+3.0620	+ 8	− 4 17 39.17	+19.897	− 8
14	[Ceti 49 G.]	5.23	A 3	0 27 19.751	+2.9993	− 25	−24 7 30.46	+19.911	+ 9
15	[λ¹ Phoenicis]	4.88	A 2	0 28 28.620	+2.8938	+ 122	−49 8 27.22	+19.901	+ 12
16	[κ Cassiopeiae]	4.24	B 0	0 29 30.971	+3.4052	+ 11	+62 35 43.46	+19.881	+ 3
17	ζ Cassiopeiae	3.72	B 3	0 33 33.652	+3.3395	+ 23	+53 33 41.22	+19.822	− 7
18	π Androm.	4.44	B 3	0 33 37.020	+3.2034	+ 17	+33 23 1.71	+19.829	0
19	[ε Androm.]	4.52	G 5	0 35 19.610	+3.1694	− 173	+28 58 50.86	+19.555	− 251
20	δ Androm.	3.49	K 2	0 36 3.618	+3.2071	+ 106	+30 31 39.08	+19.712	− 84
21	α Cassiopeiae	2.47	K 0	0 37 1.905	+3.4002	+ 60	+56 12 11.15	+19.753	− 29
22	β Ceti	2.24	K 0	0 40 31.691	+3.0112	+ 160	−18 19 16.19	+19.770	+ 39
23	[η Phoenicis]	4.53	A 0	0 40 37.218	+2.6995	+ 5	−57 47 51.95	+19.722	− 8
26	[λ² Sculptoris]	5.97	K 0	0 41 15.168	+2.8987	+ 178	−38 45 27.59	+19.834	+ 114
25	o Cassiopeiae	4.70	B 2	0 41 18.962	+3.3408	+ 22	+47 57 2.82	+19.711	− 8
24	21 Cassiopeiae	5.59	A 2	0 41 34.866	+3.9460	− 58	+74 39 17.89	+19.692	− 23
27	ζ Androm.	4.30	K 0	0 44 6.024	+3.1790	− 75	+23 56 8.31	+19.595	− 79
28	[δ Piscium]	4.55	K 5	0 45 30.895	+3.1118	+ 52	+ 7 15 12.25	+19.604	− 46
31	[λ Hydri]	4.96	K 5	0 46 29.146	+2.0898	+ 396	−75 15 19.06	+19.606	− 27
29	[Br 82]	5.45	F 2 + A 2	0 47 0.410	+3.6349	+ 59	+63 54 57.20	+19.619	− 5
30	[19 Ceti]	5.24	F 5	0 47 4.262	+3.0043	− 159	−10 58 21.07	+19.400	− 223
34	[λ² Tucanae]	5.34	K 0	0 52 43.664	+2.2390	− 33	−69 51 24.41	+19.470	− 45
32	γ Cassiopeiae	2.25	B 0 p	0 53 0.583	+3.6157	+ 37	+60 23 12.55	+19.506	− 4
33	μ Androm.	3.94	A 2	0 53 21.585	+3.3283	+ 129	+38 10 8.04	+19.539	+ 36
35	α Sculptoris	4.39	B 5	0 55 40.005	+2.8894	− 5	−29 41 13.22	+19.450	− 5
36	ε Piscium	4.45	K 0	0 59 46.488	+3.1133	− 55	+ 7 33 43.85	+19.396	+ 30
37	[26 Ceti]	6.07	F 0	1 0 40.574	+3.0875	+ 81	+ 1 2 24.81	+19.306	− 39
38	†β Phoenicis	3.35	K 0	1 3 21.746	+2.6757	− 56	−47 2 43.23	+19.267	− 15
39	[ι Tucanae]	5.32	K 0	1 4 53.955	+2.3779	+ 100	−62 6 2.63	+19.241	− 4

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Verände-rung	Jährl. Eigen-bew. in 0ˢ.0001	Dekl. 1939.0	Jährl. Verände-rung	Jährl. Eigen-bew. in 0".001
		m		h m s	s		° ' "	"	
40	[η Ceti]	3.60	K o	1 5 31.197	+3.0169	+ 137	−10 30 18.66	+19.098	−132
42	β Androm.	2.37	M a	1 6 18.580	+3.3581	+ 151	+35 17 51.54	+19.098	−113
41	[44 H. Cephei]	5.68	A o	1 6 55.485	+5.1523	+ 336	+79 21 0.55	+19.204	+ 9
43	[τ Piscium]	4.70	K o	1 8 17.685	+3.3030	+ 56	+29 45 58.11	+19.119	− 41
44	[Sculpt. 102 G.]	5.91	A 5	1 9 56.744	+2.7612	+ 39	−38 10 45.71	+19.090	− 27
45	υ Piscium	4.67	A 2	1 16 6.459	+3.2960	+ 15	+26 56 38.25	+18.938	− 11
47	ϑ Ceti	3.83	K o	1 20 58.412	+2.9984	− 55	− 8 29 51.40	+18.592	−214
46	[ψ Cassiop.]	4.96	K o	1 21 35.714	+4.2286	+ 135	+67 48 44.82	+18.819	+ 32
48	δ Cassiopeiae	2.80	A 5	1 21 48.412	+3.9190	+ 399	+59 55 8.42	+18.737	− 43
49	[γ Phoenicis]	3.40	K 5	1 25 42.987	+2.6038	− 38	−43 37 49.72	+18.440	−218
50	η Piscium	3.72	G 5	1 28 12.904	+3.2093	+ 15	+15 1 54.74	+18.570	− 7
53	[Hydri 14 G.]	6.06	G 5	1 33 13.612	+0.3925	− 71	−78 48 51.71	+18.280	−128
51	40 Cassiopeiae	5.50	K o	1 33 35.882	+4.7780	− 20	+72 43 48.63	+18.389	− 6
52	υ Persei	3.77	K o	1 34 14.167	+3.6793	+ 64	+48 19 11.54	+18.260	−113
54	α Eridani	0.60	B 5	1 35 26.729	+2.2352	+ 121	−57 32 46.66	+18.292	− 38
55	43 Cassiopeiae	5.54	A o p	1 37 47.569	+4.4327	+ 88	+67 44 7.82	+18.245	− 2
56	[ν Piscium]	4.68	K o	1 38 15.261	+3.1218	− 16	+ 5 10 46.21	+18.231	+ 2
58	[Sculpt. 129 G.]	5.64	A o	1 39 21.573	+2.6422	− 57	−37 8 22.50	+18.166	− 23
57	φ Persei	4.19	B o p	1 39 49.451	+3.7567	+ 26	+50 22 55.97	+18.158	− 15
59	τ Ceti	3.65	K o	1 41 14.035	+2.7871	−1194	−16 15 29.59	+18.973	+853
60	o Piscium	4.50	K o	1 42 10.158	+3.1674	+ 47	+ 8 51 5.00	+18.135	+ 50
61	Lac. ε Sculpt.	5.39	F o	1 42 47.271	+2.8084	+ 99	−25 21 26.11	+17.986	− 75
62	ζ Ceti	3.92	K o	1 48 26.898	+2.9609	+ 22	−10 38 8.67	+17.807	− 34
64	α Trianguli	3.58	F 5	1 49 35.883	+3.4190	+ 11	+29 16 56.84	+17.562	−233
63	ε Cassiopeiae	3.44	B 3	1 49 58.990	+4.3084	+ 50	+63 22 14.62	+17.765	− 15
65	ξ Piscium	4.84	K o	1 50 23.714	+3.1056	+ 13	+ 2 53 13.16	+17.782	+ 19
67	ψ Phoenicis	4.41	M b	1 51 12.076	+2.4046	− 94	−46 36 4.15	+17.629	−101
66	β Arietis	2.72	A 5	1 51 15.900	+3.3129	+ 65	+20 30 38.24	+17.619	−109
69	[η² Hydri]	4.72	K o	1 53 23.166	+1.5188	+ 119	−67 56 49.14	+17.719	+ 79
68	χ Eridani	3.73	G 5	1 53 35.012	+2.3334	+ 711	−51 54 44.67	+17.902	+270
72	α Hydri	3.02	F o	1 56 50.815	+1.8894	+ 360	−61 51 58.89	+17.515	+ 21
71	υ Ceti	4.18	M a	1 57 7.836	+2.8264	+ 91	−21 22 21.58	+17.468	− 14
70	50 Cassiopeiae	4.06	A 2	1 58 10.916	+5.1073	− 91	+72 7 38.64	+17.462	+ 25
73	γ Androm.	2.28 5.08	K o A o	2 0 8.716	+3.6804	+ 43	+42 2 16.31	+17.298	− 54
74	α Arietis	2.23	K 2	2 3 43.741	+3.3808	+ 137	+23 10 29.71	+17.050	−143
75	β Trianguli	3.08	A 5	2 5 54.365	+3.5684	+ 122	+34 41 58.88	+17.054	− 40
77	[6 Persei]	5.40	K o	2 9 32.110	+3.9868	+ 368	+50 47 0.57	+16.757	−169
76	55 Cassiopeiae	6.15	F 5 + A 2	2 9 40.045	+4.6992	− 10	+66 14 23.52	+16.923	+ 3
78	Lac. μ Forn.	5.24	A o	2 10 13.340	+2.6422	+ 13	−31 0 33.80	+16.896	+ 2
79	[γ Trianguli]	4.07	A o	2 13 40.829	+3.5651	+ 37	+33 33 58.19	+16.686	− 44

Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″001
		m		h m s	s		° ′ ″	″	
80	67 Ceti	5.70	G 5	2 13 56.347	+2.9919	+ 55	− 6 42 8.98	+16.607	−110
82	[φ Eridani]	3.78	B 8	2 14 19.751	+2.1421	+ 81	−51 47 39.00	+16.662	− 36
81	[ϑ Arietis]	5.69	A 0	2 14 43.665	+3.3363	− 10	+19 37 11.50	+16.677	− 2
83	[κ Fornacis]	5.37	F 5	2 19 45.068	+2.7450	+ 142	−24 5 34.28	+16.368	− 63
84	[λ Horologii]	5.47	F 2	2 23 11.513	+1.6773	− 95	−60 35 4.56	+16.120	−137
86	[κ Eridani]	4.44	B 5	2 24 44.851	+2.1974	− 2	−47 58 38.11	+16.154	− 23
85	ξ² Ceti	4.34	A 0	2 24 54.755	+3.1893	+ 26	+ 8 11 15.35	+16.164	− 4
88	[λ¹ Fornacis]	5.88	K 0	2 30 34.270	+2.4991	− 43	−34 55 3.99	+15.839	− 32
87	36 H. Cassiop.	5.34	K 0	2 32 11.198	+5.6875	− 60	+72 33 11.81	+15.806	+ 21
90	μ Hydri	5.29	K 0	2 32 55.004	−1.2882	+ 468	−79 22 32.50	+15.712	− 34
89	ν Arietis	5.36	A 2	2 35 20.838	+3.4056	− 9	+21 41 55.32	+15.597	− 16
91	δ Ceti	4.04	B 2	2 36 21.207	+3.0747	+ 7	+ 0 3 58.73	+15.555	− 2
95	[ε Hydri]	4.26	B 9	2 38 38.659	+0.9217	+ 168	−68 31 40.95	+15.435	+ 5
92	[Br 366]	5.84	A 2	2 39 32.805	+5.1511	+ 25	+67 34 1.73	+15.351	− 29
94	[35 Arietis]	4.58	B 3	2 39 51.961	+3.5193	+ 4	+27 26 55.52	+15.355	− 7
93	ϑ Persei	4.22	F 8	2 40 1.282	+4.0949	+ 346	+48 58 18.23	+15.264	− 89
96	†[γ Ceti]	3.58	A 2	2 40 8.223	+3.1080	− 98	+ 2 58 46.96	+15.199	−148
97	π Ceti	4.39	B 5	2 41 13.099	+2.8549	− 8	−14 6 57.87	+15.277	− 9
98	μ Ceti	4.36	F 0	2 41 38.461	+3.2424	+ 189	+ 9 51 27.48	+15.230	− 31
99	[η Persei]	3.93	K 0	2 46 13.892	+4.3725	+ 28	+55 38 37.71	+14.988	− 11
100	41 Arietis	3.68	B 8	2 46 23.243	+3.5303	+ 51	+27 0 37.02	+14.876	−113
101	β Fornacis	4.50	K 0	2 46 32.209	+2.5102	+ 63	−32 39 40.65	+15.139	+159
102	τ² Eridani	4.81	K 0	2 48 16.253	+2.7209	− 39	−21 15 17.20	+14.850	− 29
103	τ Persei	4.06	G 0 + A 5	2 49 55.138	+4.2500	+ 3	+52 30 51.49	+14.781	− 2
104	η Eridani	4.05	K 0	2 53 26.756	+2.9306	+ 52	− 9 8 23.86	+14.354	−218
106	ϑ Eridani	3.42 4.42	A 2	2 55 56.743	+2.2724	− 67	−40 32 53.65	+14.449	+ 28
105	47 H. Cephei	5.66	M a	2 57 53.514	+7.9601	− 113	+79 10 50.06	+14.324	+ 22
107	α Ceti	2.82	M a	2 59 5.269	+3.1355	− 9	+ 3 51 5.39	+14.153	− 76
108	γ Persei	3.08	F 5 + A 3	3 0 21.859	+4.3415	+ 2	+53 16 8.71	+14.147	− 4
109	*ρ Persei	var.	M b	3 1 15.569	+3.8430	+ 114	+38 36 19.09	+13.991	−104
113	[ϑ Hydri]	5.52	B 8	3 2 6.864	+0.1188	+ 51	−72 8 26.00	+14.064	+ 22
110	μ Horologii	5.16	F 0	3 2 10.277	+1.4111	− 117	−59 58 26.18	+13.970	− 68
111	*β Persei	var.	B 8	3 4 11.478	+3.9019	+ 7	+40 43 19.40	+13.910	− 1
112	[ι Persei]	4.17	G 0	3 4 39.156	+4.3266	+1297	+49 22 54.44	+13.798	− 85
114	δ Arietis	4.53	K 0	3 8 8.181	+3.4298	+ 106	+19 29 50.31	+13.657	− 4
117	†12 Eridani	3.95	F 8	3 9 28.680	+2.5472	+ 241	−29 13 35.88	+14.218	+644
116	[94 Ceti]	5.14	F 8	3 9 39.570	+3.0623	+ 136	− 1 25 23.25	+13.502	− 62
118	[Horol. 38 G.]	5.72	N a	3 11 0.143	+1.5170	− 5	−57 32 58.85	+13.470	− 6
115	48 H. Cephei	5.50	F 0	3 12 30.201	+7.5845	+ 183	+77 30 49.25	+13.334	− 44
119	[e Eridani]	4.30	G 5	3 17 29.521	+2.3957	+2784	−43 18 8.78	+13.779	+728

Nr. 109. Größe: Max. 3.3, Min. 4.1. Nr. 111. Größe: Max. 2.3, Min. 3.5.

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		m		h m s	s		° ′ ″	″	
120	α Persei	1.90	F 5	3 19 57.379	+4.2805	+ 29	+49 38 44.45	+12.861	— 26
121	o Tauri	3.80	G 5	3 21 31.659	+3.2283	— 44	+ 8 48 55.47	+12.705	— 76
123	[ξ Tauri]	3.75	B 8	3 23 51.601	+3.2511	+ 39	+ 9 31 15.99	+12.579	— 45
122	2 H. Camelop.	4.42	B 9 p	3 24 6.692	+4.8529	— 1	+59 43 47.14	+12.613	+ 6
124	[σ Persei]	4.55	K o	3 26 15.827	+4.2278	+ 9	+47 47 10.81	+12.483	+ 23
125	*f* Tauri	4.28	K o	3 27 30.106	+3.3118	+ 13	+12 43 43.77	+12.369	— 5
126	[κ Reticuli]	4.80	F 5	3 28 18.195	+1.0422	+514	—63 9 8.47	+12.679	+ 360
127	ε Eridani	3.81	K o	3 30 3.328	+2.8268	—657	— 9 39 49.47	+12.212	+ 14
128	[Horol. 45 G.]	5.60	K o	3 30 45.285	+1.7848	+ 48	—50 35 5.79	+12.230	+ 80
130	[*y* Eridani]	4.58	K o	3 34 54.257	+2.1522	— 16	—40 28 25.88	+11.835	— 24
129	[Grb 716]	5.32	M a	3 36 50.502	+5.2003	— 21	+63 1 16.23	+11.744	+ 22
131	δ Persei	3.10	B 5	3 38 34.326	+4.2696	+ 33	+47 35 39.18	+11.563	— 35
133	[δ Fornacis]	4.93	B 5	3 39 49.260	+2.3855	— 5	—32 7 56.70	+11.517	+ 7
135	[δ Eridani]	3.72	K o	3 40 19.478	+2.8741	— 64	— 9 58 7.33	+12.220	+ 747
132	†[o Persei]	3.94	B 1	3 40 29.267	+3.7614	+ 8	+32 5 47.17	+11.445	— 17
134	ν Persei	3.93	F 5	3 41 2.521	+4.0746	— 6	+42 23 14.88	+11.417	— 5
136	[17 Tauri]	3.81	B 5 p	3 41 14.927	+3.5621	+ 17	+23 55 22.89	+11.363	— 44
137	[24 Eridani]	5.09	B 8	3 41 24.488	+3.0472	+ 1	— 1 21 15.63	+11.387	— 8
141	β Reticuli	3.80	K o	3 43 25.651	+0.7492	+477	—64 59 55.83	+11.310	+ 61
139	η Tauri	2.96	B 5 p	3 43 51.251	+3.5659	+ 17	+23 55 4.55	+11.171	— 48
138	5 H. Camelop.	4.67	A o	3 43 53.026	+6.3204	+ 42	+71 8 48.93	+11.177	— 40
140	τ^6 Eridani	4.33	F 8	3 44 13.323	+2.5803	—124	—23 25 43.45	+10.673	— 519
142	[27 Tauri]	3.80	B 8	3 45 31.835	+3.5668	+ 14	+23 52 6.11	+11.052	— 45
143	*g* Eridani	4.24	K o	3 47 10.263	+2.2453	— 40	—36 23 2.74	+10.926	— 52
146	γ Hydri	3.17	M a	3 48 9.720	—0.9372	+124	—74 25 35.34	+11.014	+ 109
144	ζ Persei	2.91	B 1	3 50 17.550	+3.7709	+ 11	+31 42 14.56	+10.737	— 11
145	†*9 H. Camel.	5.22	K o + A o	3 51 55.151	+5.1110	— 3	+60 55 56.11	+10.611	— 16
147	ε Persei	2.96	B 1	3 53 45.224	+4.0251	+ 23	+39 50 7.39	+10.462	— 29
148	ξ Persei	4.05	Oe 5	3 55 0.093	+3.8924	+ 10	+35 37 1.76	+10.390	— 8
149	γ Eridani	3.19	K 5	3 55 10.929	+2.7991	+ 42	—13 40 51.36	+10.273	— 112
150	*λ Tauri	var.	B 3	3 57 17.855	+3.3236	— 5	+12 19 9.70	+10.212	— 13
151	ν Tauri	3.94	A o	3 59 54.549	+3.1915	+ 4	+ 5 49 16.67	+10.019	— 10
153	[Erid. 174 G.]	5.57	A 5	4 3 6.521	+2.4726	+148	—27 49 3.27	+ 9.893	+ 107
152	*c* Persei	4.03	B 3 p	4 4 13.517	+4.3548	+ 33	+47 33 5.34	+ 9.668	— 32
154	o^1 Eridani	4.14	F 2	4 8 53.196	+2.9288	+ 8	— 6 59 43.44	+ 9.423	+ 82
155	α Horologii	3.83	K o	4 11 58.653	+1.9863	+ 20	—42 26 38.78	+ 8.882	— 219
156	α Reticuli	3.36	G 5	4 13 37.991	+0.7703	+ 50	—62 37 34.15	+ 9.019	+ 47
157	[γ Doradus]	4.36	F 5	4 14 25.463	+1.5696	+ 89	—51 38 24.02	+ 9.082	+ 171
160	†υ^4 Eridani	3.59	B 9	4 15 35.026	+2.2690	+ 37	—33 56 47.02	+ 8.807	— 12
159	[γ Tauri]	3.86	K o	4 16 19.144	+3.4141	+ 82	+15 28 54.28	+ 8.732	— 29

Nr. 145. Doppelstern, Größe der Komponenten: 5.0 und 8.2. Nr. 150. Größe: Max. 3.3, Min. 4.2.

Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.s0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		m		h m s	s		° ′ ″	″	
158	[54 Persei]	5.10	G 5	4 16 26.672	+3.8949	— 20	+34 25 16.27	+8.746	— 6
161	[Erid. 212 G.]	5.31	A 0	4 17 59.399	+2.6189	+ 36	—20 47 1.14	+8.645	+ 15
162	δ Tauri	3.93	K 0	4 19 24.846	+3.4599	+ 78	+17 24 3.39	+8.486	— 31
163	[η Reticuli]	5.18	K 0	4 21 13.468	+0.6475	+127	—63 31 51.87	+8.533	+160
166	[δ Mensae]	5.62	K 0 p	4 22 2.894	—4.0750	+100	—80 21 30.70	+8.380	+ 71
164	ε Tauri	3.63	K 0	4 25 3.123	+3.5034	+ 80	+19 2 48.23	+8.033	— 36
165	*[1 Camel. seq.]	5.42	B 1	4 27 11.401	+4.7506	+ 7	+53 46 49.47	+7.897	0
167	[δ Caeli]	5.16	B 3	4 28 57.888	+1.8367	— 6	—45 5 2.61	+7.737	— 17
168	α Tauri	1.06	K 5	4 32 25.072	+3.4425	+ 48	+16 23 17.61	+7.286	—189
171	α Doradus	3.47	A 0 p	4 32 40.690	+1.2974	+ 71	—55 10 13.20	+7.457	+ 3
170	[υ² Eridani]	3.88	K 0	4 33 10.649	+2.3318	— 46	—30 41 9.79	+7.407	— 6
169	ν Eridani	4.12	B 2	4 33 16.185	+2.9979	+ 2	— 3 28 33.03	+7.401	— 4
172	53 Eridani	3.98	K 0	4 35 23.118	+2.7471	— 54	—14 25 19.64	+7.069	—164
174	τ Tauri	4.33	B 5	4 38 34.883	+3.6013	+ 5	+22 50 29.46	+6.953	— 19
173	Grb 848	6.04	F 0	4 40 35.318	+8.0628	+104	+75 50 2.02	+6.673	—134
176	[μ Eridani]	4.18	B 5	4 42 27.080	+3.0003	+ 13	— 3 21 54.33	+6.642	— 12
175	4 Camelop.	5.35	A 2	4 42 54.783	+4.9958	+ 60	+56 39 4.17	+6.469	—146
177	[μ Mensae]	5.69	B 9	4 43 39.897	—0.6016	+ 17	—71 2 35.49	+6.582	+ 28
179	[π⁴ Orionis]	3.78	B 3	4 47 57.332	+3.1954	0	+ 5 30 7.70	+6.190	— 7
178	9 Camelop.	4.38	B 0	4 47 58.262	+5.9605	+ 5	+66 14 30.89	+6.206	+ 10
180	π⁵ Orionis	3.87	B 3	4 51 4.339	+3.1251	— 2	+ 2 20 31.80	+5.935	— 3
181	ι Aurigae	2.90	K 2	4 53 1.092	+3.9073	+ 10	+33 4 16.78	+5.755	— 20
183	*ε Aurigae	var.	F 5 p	4 57 35.246	+4.3051	+ 6	+43 44 5.78	+5.378	— 14
182	10 Camelop.	4.22	G 0 p	4 57 58.989	+5.3356	— 1	+60 21 20.35	+5.346	— 12
184	ι Tauri	4.70	A 5	4 59 26.869	+3.5866	+ 53	+21 30 16.26	+5.192	— 43
185	η Aurigae	3.28	B 3	5 2 14.017	+4.2073	+ 33	+41 9 14.14	+4.927	— 71
186	ε Leporis	3.29	K 5	5 2 52.698	+2.5399	+ 20	—22 27 6.22	+4.876	— 68
187	[η² Pictoris]	4.92	K 5	5 3 22.923	+1.5510	+ 35	—49 39 34.36	+4.907	+ 6
189	[ζ Doradus]	4.76	F 8	5 4 27.605	+1.0255	— 70	—57 33 20.50	+4.913	+103
188	β Eridani	2.92	A 3	5 4 51.008	+2.9498	— 59	— 5 9 50.03	+4.698	— 79
190	[λ Eridani]	4.34	B 2	5 6 13.588	+2.8714	+ 3	— 8 49 51.46	+4.656	— 4
192	μ Aurigae	4.78	A 3	5 9 15.064	+4.1055	— 13	+38 24 50.94	+4.324	— 79
194	β Orionis	0.34	B 8 p	5 11 36.313	+2.8833	+ 2	— 8 16 14.64	+4.201	0
193	α Aurigae	0.21	G 0	5 12 10.767	+4.4322	+ 84	+45 56 17.01	+3.724	—428
191	19 H. Camelop.	5.16	F 8	5 12 27.798	+9.8748	—309	+79 9 57.13	+4.289	+161
196	ϑ Doradus	4.78	K 0	5 13 47.940	—0.0481	+ 15	—67 15 14.14	+4.052	+ 39
195	[τ Orionis]	3.68	B 5	5 14 38.608	+2.9132	— 12	— 6 54 32.14	+3.934	— 7
197	[o Columbae]	4.91	K 0	5 15 16.982	+2.1630	+ 62	—34 57 13.23	+3.557	—329
198	[Columb. 12 G.]	5.75	A 0	5 16 57.815	+2.3925	+ 8	—27 25 49.75	+3.731	— 11
199	[ζ Pictoris]	5.52	F 8	5 17 52.202	+1.4706	+ 9	—50 40 14.91	+3.891	+227

Nr. 165. Doppelstern, Größe der Komponenten: 5.86 und 6.61. Nr. 183. Größe: Max. 3.4, Min. 4.1.

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.s0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ′ ″	″	
200	†[η Orion. med.]	3.44	B 1	5 21 24.576	+3.0171	+ 5	− 2 27 6.40	+3.360	+ 1
201	γ Orionis	1.70	B 2	5 21 51.503	+3.2182	− 3	+ 6 17 45.01	+3.300	− 20
202	β Tauri	1.78	B 8	5 22 26.063	+3.7931	+ 25	+28 33 27.87	+3.094	−177
203	17 Camelop.	5.75	K 5	5 24 24.150	+5.6657	− 3	+63 1 8.50	+3.099	− 1
204	[β Leporis]	2.96	G 0	5 25 37.906	+2.5714	+ 4	−20 48 25.00	+2.901	− 93
206	δ Orionis	2.48 6.87	B 0	5 28 53.347	+3.0651	0	− 0 20 34.17	+2.711	− 2
207	α Leporis	2.69	F 0	5 30 2.347	+2.6462	+ 2	−17 51 52.93	+2.615	+ 2
208	[φ¹ Orionis]	4.53	B 0	5 31 28.240	+3.2936	− 1	+ 9 26 59.04	+2.478	− 10
205	Grb 966	6.36	K 5	5 31 33.394	+8.0233	− 8	+75 0 26.20	+2.501	+ 20
209	ι Orionis	2.87	Oe 5	5 32 26.924	+2.9353	+ 4	− 5 56 55.04	+2.399	− 4
212	β Doradus	3.81	F 5 p	5 33 5.579	+0.5193	− 13	−62 31 46.41	+2.345	− 2
210	ε Orionis	1.75	B 0	5 33 7.039	+3.0444	+ 1	− 1 14 22.01	+2.343	− 3
211	ζ Tauri	3.00	B 3 p	5 33 59.893	+3.5861	+ 6	+21 6 25.24	+2.244	− 26
214	[γ Mensae]	5.06	K 0	5 34 17.250	−2.3809	+286	−76 23 7.64	+2.542	+298
213	†[σ Orionis]	3.78	B 0	5 35 40.978	+3.0120	0	− 2 38 1.85	+2.122	− 1
215	α Columbae	2.75	B 5 p	5 37 26.335	+2.1724	− 2	−34 6 20.77	+1.933	− 37
216	ο Aurigae	5.52	A 0	5 41 10.398	+4.6485	− 6	+49 48 6.33	+1.636	− 9
217	[γ Leporis]	3.80	F 8	5 41 55.243	+2.5021	−201	−22 28 1.80	+1.204	−375
218	[130 Tauri]	5.51	F 0	5 43 52.781	+3.4990	+ 4	+17 42 28.73	+1.403	− 6
219	ζ Leporis	3.67	A 2	5 44 11.451	+2.7186	− 12	−14 50 36.15	+1.380	− 2
220	κ Orionis	2.20	B 0	5 44 51.780	+2.8458	+ 4	− 9 41 23.75	+1.320	− 3
221	[ν Aurigae]	4.18	K 0	5 47 15.652	+4.1582	− 4	+39 7 57.76	+1.125	+ 11
222	[δ Leporis]	3.90	K 0	5 48 41.861	+2.5803	+164	−20 52 59.21	+0.335	−653
223	[β Columbae]	3.22	K 0	5 48 48.465	+2.1143	+ 34	−35 47 24.68	+1.382	+404
224	α Orionis	0.92	M a	5 51 52.132	+3.2485	+ 20	+ 7 23 50.46	+0.724	+ 13
226	[η Leporis]	3.77	F 0	5 53 37.578	+2.7330	− 27	−14 10 39.03	+0.697	+140
225	δ Aurigae	3.88	K 0	5 54 30.255	+4.9409	+100	+54 16 56.95	+0.358	−122
227	β Aurigae	2.07	A 0 p	5 55 3.272	+4.4021	− 42	+44 56 35.88	+0.425	− 8
228	†ϑ Aurigae	2.71	A 0 p	5 55 33.712	+4.0924	+ 48	+37 12 36.71	+0.301	− 87
229	η Columbae	4.03	K 0	5 57 16.775	+1.8372	+ 22	−42 49 4.58	+0.204	− 34
230	[66 Orionis]	5.70	K 0	6 1 44.938	+3.1697	− 6	+ 4 9 48.54	−0.168	− 15
231	[Puppis 1 G.]	6.22	F 8	6 2 43.055	+1.7270	− 82	−45 2 8.28	−0.005	+232
232	ν Orionis	4.40	B 2	6 4 5.369	+3.4266	+ 11	+14 46 38.10	−0.389	− 31
233	[36 Camelop.]	5.39	K 0	6 6 42.832	+6.0353	− 5	+65 44 0.61	−0.616	− 29
235	[δ Pictoris]	4.84	B 1	6 9 6.527	+1.1672	− 22	−54 57 16.64	−0.804	− 7
236	†*η Gemin.	var.	M a	6 11 11.759	+3.6224	− 42	+22 31 34.54	−0.992	− 13
239	[α Mensae]	5.14	K 0	6 12 3.195	−1.7925	+233	−74 43 59.34	−1.280	−227
234	22 H. Camelop.	4.73	A 0	6 12 7.730	+6.6142	+ 15	+69 20 40.61	−1.162	−102
237	[2 Lyncis]	4.42	A 0	6 14 14.588	+5.2952	− 7	+59 2 8.41	−1.216	+ 29
238	[κ Columbae]	4.51	K 0	6 14 22.886	+2.1345	− 6	−35 7 9.59	−1.183	+ 74

Nr. 236. Größe: Max. 3.3, Min. 4.2.

Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		m		h m s	s		° ′ ″	″	
240	ζ Canis maj.	3.10	B 3	6 17 58.238	+ 2.3031	+ 2	−30 2 6.38	−1.566	+ 4
241	μ Geminor.	3.19	M a	6 19 16.262	+ 3.6306	+ 48	+22 32 48.10	−1.794	− 111
243	β Canis maj.	1.99	B 1	6 20 0.776	+ 2.6421	− 4	−17 55 27.53	−1.746	+ 2
242	ψ^1 Aurigae	5.10	K 2	6 20 12.159	+ 4.6226	+ 9	+49 19 16.68	−1.768	− 3
244	8 Monocer.	4.48 6.54	A 5	6 20 32.170	+ 3.1800	− 7	+ 4 37 31.06	−1.790	+ 4
245	α Argus	−0.86	F 0	6 22 35.786	+ 1.3315	+ 16	−52 39 42.40	−1.962	+ 11
246	10 Monocer.	4.98	B 3	6 24 56.846	+ 2.9631	− 2	− 4 43 22.68	−2.172	+ 5
247	8 Lyncis	6.05	G 0	6 32 7.236	+ 5.4852	−285	+61 32 14.73	−3.076	− 276
249	ξ^2 Canis maj.	4.54	A 0	6 32 29.956	+ 2.5144	+ 5	−22 54 55.03	−2.819	+ 13
251	γ Geminor.	1.93	A 0	6 34 11.333	+ 3.4667	+ 34	+16 27 10.74	−3.025	− 46
250	51 Aurigae	5.71	K 0	6 34 26.032	+ 4.1582	− 19	+39 26 47.61	−3.115	− 114
248	23 H. Camelop.	5.60	F 8	6 35 51.624	+10.2592	−305	+79 38 7.19	−3.745	− 621
252	ν Argus	3.18	B 8	6 35 53.656	+ 1.8357	− 4	−43 8 30.38	−3.147	− 20
253	†**S* Monoc.	4.68	Oe 5	6 37 37.176	+ 3.3050	+ 6	+ 9 57 13.49	−3.281	− 5
254	ε Geminor.	3.18	G 5	6 40 10.852	+ 3.6924	+ 3	+25 11 35.88	−3.511	− 15
256	ξ Geminor.	3.40	F 5	6 41 52.002	+ 3.3680	− 75	+12 57 46.41	−3.840	− 199
255	[ψ^5 Aurigae]	5.34	G 0	6 42 20.749	+ 4.3263	+ 7	+43 38 24.24	−3.528	+ 154
257	*α Canis maj.	−1.58	A 0	6 42 27.697	+ 2.6436	−371	−16 37 52.35	−4.904	−1211
258	18 Monocer.	4.70	K 0	6 44 40.883	+ 3.1296	− 2	+ 2 28 49.04	−3.903	− 20
264	[ζ Mensae]	5.64	A 2	6 45 9.423	− 4.9772	− 32	−80 45 4.13	−3.839	+ 85
259	[43 Camelop.]	5.13	B 5	6 47 8.373	+ 6.4757	+ 16	+68 57 44.00	−4.091	+ 3
262	α Pictoris	3.30	A 5	6 47 34.022	+ 0.6168	− 99	−61 52 32.24	−3.874	+ 256
263	[τ Argus]	2.83	K 0	6 48 25.331	+ 1.4886	+ 29	−50 32 29.67	−4.299	− 96
261	ϑ Geminor.	3.64	A 2	6 48 46.271	+ 3.9560	+ 7	+34 2 11.77	−4.288	− 55
260	[24 H. Camel.]	4.75	K 5	6 51 12.025	+ 8.7655	+216	+77 3 33.23	−4.455	− 14
266	ϑ Canis maj.	4.25	K 2	6 51 21.353	+ 2.7877	− 94	−11 57 39.20	−4.467	− 13
265	†15 Lyncis	4.54	G 0	6 52 0.073	+ 5.1981	− 1	+58 30 18.76	−4.639	− 130
267	[ι Volantis]	5.52	B 8	6 52 9.235	− 0.6841	− 4	−70 53 16.13	−4.510	+ 12
268	ε Canis maj.	1.63	B 1	6 56 13.659	+ 2.3578	0	−28 53 16.60	−4.867	+ 1
270	[o^2 Canis maj.]	3.12	B 5 p	7 0 28.631	+ 2.5055	− 2	−23 44 34.86	−5.228	0
269	*ζ Geminor.	var.	G 0 p	7 0 29.570	+ 3.5595	0	+20 39 41.29	−5.232	− 3
271	γ Canis maj.	4.07	B 5	7 0 59.965	+ 2.7153	+ 8	−15 32 30.92	−5.284	− 12
272	[Carinae 27 G.]	5.30	A 0	7 3 10.001	+ 1.1164	− 24	−56 39 23.85	−5.462	− 7
273	δ Canis maj.	1.98	F 8 p	7 5 54.614	+ 2.4392	− 8	−26 17 42.77	−5.682	+ 3
274	63 Aurigae	5.07	K 2	7 7 27.817	+ 4.1288	+ 45	+39 25 19.15	−5.815	0
275	[*J* Puppis]	4.47	F 0	7 10 49.195	+ 1.7096	−147	−46 39 24.31	−6.005	+ 91
276	[64 Aurigae]	5.75	A 3	7 13 48.018	+ 4.1744	− 3	+40 59 36.53	−6.340	+ 3
277	λ Geminor.	3.65	A 2	7 14 35.340	+ 3.4487	− 31	+16 39 6.98	−6.452	− 44
278	π Argus	2.74	K 5	7 14 59.247	+ 2.1186	− 14	−36 59 13.18	−6.439	+ 3
279	δ Geminor.	3.51	F 0	7 16 28.950	+ 3.5846	− 11	+22 5 46.99	−6.576	− 10

Nr. 253. Doppelstern, Größe der Komponenten: 6.0 und 8.8.
Nr. 257. Ort des Schwerpunktes. Die Reduktion auf den Hauptstern ist nach den Elementen von Auwers A. N. 3085:

1939.0	$\Delta\alpha = -0^s.014$	$\Delta\delta = -1''.51$
1940.0	$= +0.008$	$= -1.20$

Nr. 269. Größe: Max. 3.7, Min. 4.3.

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.s0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ′ ″	″	
281	δ Volantis	4.02	F 5	7 16 52.133	−0.0255	+ 4	−67 50 44.73	− 6.610	− 12
280	19 Lyncis seq.	5.61	B 8	7 17 53.909	+4.8990	− 1	+55 23 54.77	− 6.717	− 34
283	[η Can. maj.]	2.43	B 5 p	7 21 40.918	+2.3732	− 5	−29 10 58.23	− 6.980	+ 13
282	ι Geminor.	3.89	K 0	7 21 56.486	+3.7281	− 83	+27 55 15.86	− 7.100	− 85
285	β Canis min.	3.09	B 8	7 23 50.651	+3.2545	− 31	+ 8 24 49.42	− 7.211	− 40
284	Grb 1308	5.80	K 0	7 24 33.111	+6.2514	− 7	+68 35 34.96	− 7.272	− 44
286	ρ Geminor.	4.18	F 0	7 25 11.478	+3.8604	+122	+31 54 27.69	− 7.098	+ 182
287	*α Geminor.	2.85 1.99	A 0	7 30 42.605	+3.8313	−129	+32 1 28.50	− 7.809	− 81
288	[Pupp. 108 G.]	4.52	F 8	7 31 26.467	+2.5676	− 39	−22 9 48.80	− 7.769	+ 18
289	25 Monocer.	5.17	F 5	7 34 14.757	+2.9832	− 47	− 3 58 24.25	− 7.992	+ 20
290	[f Puppis]	4.62	B 8	7 35 6.624	+2.2195	− 27	−34 49 48.95	− 8.065	+ 16
291	*α Canis min.	0.48	F 5	7 36 6.597	+3.1410	−470	+ 5 22 57.97	− 9.188	−1027
292	24 Lyncis	4.96	A 2	7 37 51.449	+5.0810	− 47	+58 51 19.20	− 8.354	− 53
293	[26 Monocer.]	4.07	K 0	7 38 19.950	+2.8660	− 57	− 9 24 27.23	− 8.360	− 21
294	κ Geminor.	3.68	G 5	7 40 46.107	+3.6237	− 15	+24 32 45.23	− 8.586	− 54
295	β Geminor.	1.21	K 0	7 41 35.205	+3.6728	−468	+28 10 30.54	− 8.648	− 52
297	ζ Volantis	3.89	K 0	7 42 34.753	−0.7374	+ 8	−72 27 35.86	− 8.667	+ 8
296	π Geminor.	5.29	K 2	7 43 34.697	+3.8707	− 1	+33 34 1.58	− 8.784	− 31
298	†[Pupp. 205 G.]	5.34	G 0	7 48 56.851	+2.7785	− 41	−13 44 5.90	− 9.516	− 343
301	[α Puppis]	3.76	G 5	7 50 7.161	+2.0621	− 18	−40 25 3.20	− 9.263	+ 1
299	[26 Lyncis]	5.69	K 0	7 50 16.697	+4.3719	− 40	+47 43 28.39	− 9.283	− 6
300	Grb 1374	5.56	K 0	7 52 56.018	+7.1985	− 31	+74 5 2.51	− 9.514	− 32
303	χ Argus	3.60	B 3	7 55 13.741	+1.5263	− 32	−52 49 4.45	− 9.635	+ 24
302	[53 Camelop.]	6.00	A 2 p	7 56 30.844	+5.1326	− 30	+60 29 36.05	− 9.778	− 21
304	[27 Monocer.]	5.06	K 0	7 56 41.424	+2.9988	− 27	− 3 30 42.51	− 9.761	+ 9
305	χ Geminor.	5.04	K 0	7 59 46.551	+3.6864	− 15	+27 58 0.85	−10.051	− 46
306	ζ Argus	2.27	O d	8 1 26.337	+2.1080	− 34	−39 49 49.54	−10.120	+ 10
307	27 Lyncis	4.87	A 2	8 3 52.744	+4.5171	− 59	+51 41 3.88	−10.319	− 4
308	ι Navis	2.88	F 5	8 4 56.738	+2.5549	− 64	−24 7 38.62	−10.347	+ 47
309	γ Argus	2.22	O a p	8 7 39.120	+1.8488	− 12	−47 9 22.05	−10.600	− 4
311	20 Navis	5.05	G 5	8 10 31.767	+2.7580	− 8	−15 36 11.95	−10.814	− 6
310	Br 1147	5.73	G 5	8 11 55.844	+7.5565	+ 58	+75 56 46.45	−10.894	+ 17
312	β Cancri	3.76	K 2	8 13 12.552	+3.2545	− 30	+ 9 22 29.49	−11.057	− 52
313	[q Puppis]	4.43	A 5	8 16 16.197	+2.2445	−104	−36 28 9.85	−11.139	+ 89
314	31 Lyncis	4.43	K 5	8 18 40.060	+4.1110	− 8	+43 23 7.22	−11.509	− 108
315	ε Argus	1.74	K 0 + B	8 21 15.890	+1.2327	− 32	−59 18 45.35	−11.572	+ 15
318	ϑ Chamael.	4.26	K 0	8 22 30.157	−1.7879	−459	−77 17 18.39	−11.644	+ 31
316	Br 1197	3.95	A 0	8 22 36.825	+2.9986	− 41	− 3 42 22.21	−11.704	− 21
319	[β Volantis]	3.65	K 0	8 25 4.770	+0.6554	− 55	−65 55 59.71	−12.035	− 177
317	o Ursae maj.	3.47	G 0	8 25 12.861	+4.9923	−174	+60 55 26.59	−11.978	− 110

Nr. 287. Rektaszension der Mitte, Deklination des folgenden, helleren Sterns.
Nr. 291. Ort des Schwerpunktes. Die Reduktion auf den Ort des hellen Sterns beträgt nach den Elementen von Auwers A.N. 3929:

1939.0 $\Delta\alpha = +0.^{s}052$ $\Delta\delta = -0.''64$
1940.0 $= +0.047$ $= -0.71$

Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		m		h m s	s		° ′ ″	″	
320	Grb 1450	6.05	K 0	8 28 57.456	+3.9027	− 83	+38 13 37.72	−12.299	−170
321	η Cancri	5.52	K 0	8 29 11.103	+3.4711	− 26	+20 38 58.92	−12.195	− 50
322	[Grb 1446]	6.29	K 0	8 32 58.419	+6.6923	− 37	+73 50 43.63	−12.511	−104
323	[Grb 1460]	6.03	K 0	8 34 47.123	+4.4496	− 38	+52 55 37.20	−12.566	− 35
324	[*e* Velorum]	4.13	A 5	8 35 29.840	+2.1084	− 22	−42 46 30.10	−12.587	− 7
325	[6 Hydrae]	5.15	K 2	8 37 8.042	+2.8419	− 64	−12 15 31.11	−12.693	− 3
327	α Pyxidis	3.70	B 2	8 41 8.410	+2.4105	− 15	−32 57 55.88	−12.948	+ 12
326	δ Cancri	4.17	K 0	8 41 13.317	+3.4108	− 9	+18 22 46.96	−13.201	−236
328	ι Cancri	6.61 4.20	A 5 G 5	8 43 0.667	+3.6326	− 12	+28 59 3.68	−13.131	− 47
330	†δ Argus	2.01	A 0	8 43 1.173	+1.6569	+ 21	−54 29 4.22	−13.178	− 93
331	[η Chamael.]	5.62	B 9	8 43 26.533	−2.0192	− 151	−78 44 32.97	−13.079	+ 34
329	†[ε Hydrae]	3.48	F 8	8 43 32.870	+3.1782	− 126	+ 6 38 37.80	−13.170	− 50
332	[γ Pyxidis]	4.19	K 2	8 47 56.560	+2.5464	− 99	−27 28 57.14	−13.314	+ 94
333	†[σ² Canc. med.]	5.60	K 0	8 50 31.696	+3.6624	+ 31	+30 48 41.97	−13.601	− 26
334	ζ Hydrae	3.30	K 0	8 52 10.280	+3.1723	− 64	+ 6 10 43.85	−13.669	+ 12
336	*c* Carinae	3.98	B 8	8 53 40.037	+1.3611	− 26	−60 24 38.79	−13.724	+ 52
335	ι Ursae maj.	3.12	A 5	8 55 2.519	+4.1119	− 437	+48 16 56.75	−14.109	−246
337	α Cancri	4.27	A 3	8 55 9.229	+3.2824	+ 26	+12 5 42.01	−13.906	− 35
339	10 Ursae maj.	4.09	F 5	8 56 41.355	+3.8985	− 383	+42 1 31.75	−14.230	−263
338	[ρ Ursae maj.]	4.99	M a	8 57 4.480	+5.4224	− 34	+67 52 9.10	−13.977	+ 15
341	κ Ursae maj.	3.68	A 0	8 59 28.284	+4.1002	− 27	+47 23 56.75	−14.205	− 65
340	[Grb 1501]	5.68	A 2	8 59 33.056	+4.4007	− 8	+54 31 33.00	−14.143	+ 3
343	α Volantis	4.18	A 5	9 1 29.306	+0.9487	− 8	−66 9 8.79	−14.378	−114
342	[*c* Velorum]	3.69	K 0	9 2 2.857	+2.0670	− 70	−46 51 15.59	−14.327	− 28
344	†σ² Ursae maj.	4.87	F 8	9 5 3.238	+5.2889	− 17	+67 23 2.77	−14.550	− 67
345	λ Argus	2.22	K 5	9 5 44.988	+2.2054	− 33	−43 11 7.88	−14.515	+ 9
346	[36 Lyncis]	5.30	B 8	9 9 49.409	+3.9278	− 18	+43 28 13.56	−14.810	− 42
347	ϑ Hydrae	3.84	A 0	9 11 11.547	+3.1222	+ 89	+ 2 34 21.47	−15.161	−313
348	β Argus	1.80	A 0	9 12 32.333	+0.6619	− 304	−69 27 56.72	−14.829	+ 98
349	†[38 Lyncis]	3.82	A 2	9 15 3.361	+3.7365	− 18	+37 3 42.88	−15.202	−129
351	[ι Argus]	2.25	F 0	9 15 27.395	+1.6055	− 35	−59 1 7.56	−15.094	+ 2
350	*83 Cancri	6.60	F 5	9 15 34.829	+3.3499	− 80	+17 57 53.93	−15.238	−135
352	40 Lyncis	3.30	K 5	9 17 20.720	+3.6571	− 178	+34 39 5.86	−15.192	+ 12
353	κ Argus	2.63	B 3	9 20 13.372	+1.8570	− 22	−54 44 58.48	−15.365	+ 2
354	α Hydrae	2.16	K 2	9 24 35.433	+2.9487	− 7	− 8 23 35.73	−15.577	+ 32
356	[ε Antliae]	4.64	K 2	9 26 43.544	+2.4756	− 25	−35 41 2.16	−15.740	− 14
355	*h* Ursae maj.	3.75	F 0	9 26 44.603	+4.7391	+ 167	+63 19 48.10	−15.699	+ 28
359	†ψ Argus	3.64	F 5	9 28 17.707	+2.3618	− 172	−40 11 55.81	−15.736	+ 74
358	ϑ Ursae maj.	3.26	F 8 p	9 28 47.413	+4.0171	−1026	+51 57 23.28	−16.382	−545
357	*d* Ursae maj.	4.57	G 0	9 29 7.531	+5.3195	− 119	+70 6 0.21	−15.780	+ 75

Nr. 350. Größe aus Harvard 54 entnommen.

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.s0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
361	[N Velorum]	3.04	K 5	9 29 22.107	+1.8235	— 36	—56 45 52.60	—15.867	+ 1
360	10 Leon. min.	4.62	G 5	9 30 29.640	+3.6783	+ 13	+36 40 10.17	—15.954	— 26
362	[H Carinae]	5.52	K 2	9 31 9.632	+0.4549	— 61	—72 48 37.20	—15.980	— 17
363	[Grb 1564]	5.74	K 0	9 37 3.613	+5.1491	—131	+69 30 59.71	—16.344	— 73
364	[κ Hydrae]	4.96	B 3	9 37 22.909	+2.8763	— 18	—14 3 16.35	—16.297	— 11
365	[ο Leonis]	3.76	F 5 + A 3	9 37 53.857	+3.2030	— 94	+10 10 14.82	—16.350	— 37
366	ϑ Antliae	4.98	F 5 p	9 41 28.867	+2.6739	— 40	—27 29 21.86	—16.458	+ 35
367	ε Leonis	3.12	G 0 p	9 42 23.599	+3.4070	— 31	+24 3 21.67	—16.555	— 17
369	†υ Argus	3.15 6.03	F 0	9 45 34.685	+1.5001	— 21	—64 47 19.05	—16.695	— 1
368	υ Ursae maj.	3.89	F 0	9 46 40.239	+4.2731	—379	+59 19 36.58	—16.900	—153
370	6 Sextantis	6.00	A 2	9 48 9.647	+3.0235	+ 8	— 3 57 24.04	—16.848	— 30
371	[μ Leonis]	4.10	K 0	9 49 17.939	+3.4133	—162	+26 17 42.70	—16.928	— 56
373	[Hydrae 183 G.]	5.16	M a	9 51 59.592	+2.8306	— 25	—18 43 12.08	—17.064	— 66
372	Grb 1586	5.96	K 0	9 52 58.503	+5.3802	—179	+73 10 15.05	—17.088	— 45
374	[19 Leon. min.]	5.19	F 5	9 53 57.429	+3.6776	—100	+41 20 49.41	—17.115	— 27
375	[φ Argus]	3.70	B 5	9 54 43.096	+2.1051	— 21	—54 16 36.80	—17.125	— 2
377	[η Antliae]	5.25	F 0	9 56 15.074	+2.5730	— 83	—35 35 54.10	—17.216	— 24
376	[12 Sextantis]	6.63	A 5	9 56 33.316	+3.1124	— 47	+ 3 40 38.23	—17.178	+ 27
378	π Leonis	4.89	M a	9 56 59.524	+3.1711	— 21	+ 8 20 15.67	—17.250	— 25
379	η Leonis	3.58	A 0 p	10 4 0.602	+3.2716	— 2	+17 3 39.10	—17.537	— 6
380	α Leonis	1.34	B 8	10 5 7.560	+3.1960	—167	+12 15 57.67	—17.579	— 1
381	λ Hydrae	3.83	K 0	10 7 36.864	+2.9253	—134	—12 3 6.55	—17.768	— 87
382	q Velorum	4.09	A 2	10 12 10.225	+2.5157	—154	—41 49 8.74	—17.821	+ 45
385	[ω Argus]	3.56	B 8	10 12 17.607	+1.4313	— 29	—69 44 4.80	—17.871	0
384	ζ Leonis	3.65	F 0	10 13 18.119	+3.3382	+ 15	+23 43 19.47	—17.918	— 7
383	λ Ursae maj.	3.52	A 2	10 13 25.618	+3.6214	—147	+43 13 10.82	—17.964	— 49
386	μ Ursae maj.	3.21	K 5	10 18 42.222	+3.5773	— 70	+41 48 24.95	—18.093	+ 24
387	30 H. Urs. maj.	4.92	A 0	10 19 45.425	+4.3344	— 25	+65 52 32.99	—18.175	— 18
388	[25 Sextantis]	6.10	B 9	10 20 21.491	+3.0320	— 40	— 3 45 54.77	—18.181	— 2
389	μ Hydrae	4.06	K 5	10 23 8.383	+2.9019	— 85	—16 31 27.57	—18.362	— 82
391	J Carinae	4.08	F 5	10 23 11.238	+1.1904	— 67	—73 43 14.35	—18.299	— 17
392	Lac. α Antliae	4.42	K 5	10 24 21.476	+2.7445	— 62	—30 45 23.90	—18.314	+ 10
390	31 Leon. min.	4.41	K 0	10 24 21.805	+3.4719	— 96	+37 1 13.73	—18.430	—106
393	s Carinae	4.08	F 0	10 25 38.070	+2.1997	— 32	—58 25 39.32	—18.382	— 14
394	36 Ursae maj.	4.84	F 5	10 26 44.256	+3.8443	—216	+56 17 38.78	—18.440	— 33
396	[ρ Leonis]	3.85	B 0 p	10 29 36.070	+3.1595	— 6	+ 9 37 15.93	—18.510	— 5
397	[p Carinae]	3.58	B 5 p	10 29 51.139	+2.1330	— 18	—61 22 15.90	—18.508	+ 5
395	9 H. Dracon.	5.04	G 5	10 29 57.915	+5.1196	— 95	+76 1 41.40	—18.521	— 4
399	[44 Hydrae]	5.32	K 2	10 31 6.726	+2.8538	— 2	—23 25 49.03	—18.534	+ 21
398	[37 Ursae maj.]	5.16	F 0	10 31 14.892	+3.8703	+ 83	+57 23 51.04	—18.524	+ 36

Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.ˢ0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
400	†*[*p* Velorum]	4.06	F 2 + A 3	10 34 43.843	+2.5169	−183	−47 54 30.72	−18.706	− 33
401	[γ Chamael.]	4.10	M a	10 34 45.922	+0.7185	−116	−78 17 27.51	−18.643	+ 30
402	[*x* Velorum]	4.37	G 0	10 36 52.140	+2.3811	− 75	−55 17 7.53	−18.760	− 21
404	33 Sextantis	6.40	K 0	10 38 18.026	+3.0521	− 94	− 1 25 13.47	−18.909	−125
403	[35 H. Urs. maj.]	5.23	K 0	10 38 43.713	+4.3053	− 19	+69 23 45.29	−18.815	− 18
405	[41 Leon. min.]	5.05	A 2	10 40 6.221	+3.2636	− 80	+23 30 30.26	−18.825	+ 13
406	ϑ Argus	3.03	B 0	10 40 46.572	+2.1391	− 26	−64 4 28.07	−18.854	+ 4
407	42 Leon. min.	5.37	B 9	10 42 28.731	+3.3380	− 15	+31 0 15.01	−18.945	− 37
408	†μ Argus	2.84	G 5	10 44 8.337	+2.5767	+ 49	−49 5 51.36	−19.020	− 65
411	[δ^2 Chamael.]	4.62	B 3	10 45 14.256	+0.5773	−121	−80 13 5.64	−18.977	+ 9
409	*l* Leonis	5.27	A 0	10 46 3.176	+3.1541	− 3	+10 52 6.29	−19.040	− 30
410	[ν Hydrae]	3.32	K 0	10 46 36.830	+2.9601	+ 66	−15 52 26.57	−18.830	+194
412	[46 Leon. min.]	3.92	K 0	10 49 54.411	+3.3576	+ 75	+34 32 39.19	−19.396	−282
414	[ι Antliae]	4.70	K 0	10 53 52.266	+2.7947	+ 62	−36 48 34.36	−19.352	−137
413	[Br 1508]	6.26	G 5	10 55 7.944	+4.8179	−257	+78 5 51.30	−19.273	− 26
415	*i* Velorum	4.56	A 2	10 57 21.067	+2.7514	+ 20	−41 53 54.23	−19.303	− 4
416	β Ursae maj.	2.44	A 0	10 58 10.475	+3.6254	+101	+56 42 35.15	−19.292	+ 26
417	α Ursae maj.	1.95	K 0	10 59 58.844	+3.7085	−174	+62 4 50.41	−19.432	− 72
418	χ Leonis	4.66	F 0	11 1 52.315	+3.0951	−231	+ 7 39 58.35	−19.448	− 45
419	[χ Hydrae]	5.06	F 5	11 2 23.331	+2.8886	−154	−26 57 50.49	−19.420	− 7
420	ψ Ursae maj.	3.15	K 0	11 6 14.562	+3.3761	− 57	+44 49 47.15	−19.530	− 36
421	β Crateris	4.52	A 2	11 8 39.312	+2.9501	0	−22 29 32.65	−19.640	− 98
422	δ Leonis	2.58	A 3	11 10 52.057	+3.1920	+106	+20 51 29.49	−19.721	−136
423	ϑ Leonis	3.41	A 0	11 11 2.480	+3.1488	− 43	+15 45 47.87	−19.670	− 81
424	[Grb 1757]	5.97	K 0	11 13 16.139	+3.3836	− 97	+49 48 33.66	−19.651	− 22
425	ν Ursae maj.	3.71	K 0	11 15 11.388	+3.2428	− 16	+33 25 38.58	−19.640	+ 22
426	δ Crateris	3.82	K 0	11 16 17.338	+2.9990	− 88	−14 26 53.56	−19.480	+200
427	σ Leonis	4.13	A 0	11 17 59.524	+3.0940	− 62	+ 6 21 50.18	−19.720	− 12
428	π Centauri	4.26	B 5	11 18 13.062	+2.7335	− 41	−54 9 23.44	−19.724	− 13
429	Grb 1771	5.98	A 0	11 19 14.912	+3.5713	− 10	+64 39 52.73	−19.693	+ 34
430	†[ι Leonis]	4.03	F 5	11 20 44.729	+3.1274	+106	+10 51 55.30	−19.834	− 84
431	[γ Crateris]	4.14	A 5	11 21 49.928	+2.9967	− 72	−17 20 55.07	−19.760	+ 7
432	[58 Ursae maj.]	5.88	F 8	11 27 13.541	+3.2495	− 43	+43 30 29.45	−19.767	+ 72
433	λ Draconis	4.06	M a	11 27 48.371	+3.5700	− 79	+69 40 4.52	−19.868	− 21
434	ξ Hydrae	3.72	G 5	11 29 59.819	+2.9493	−167	−31 31 11.74	−19.915	− 43
436	λ Centauri	3.34	B 9	11 32 57.406	+2.7627	− 58	−62 40 55.92	−19.921	− 17
435	[C^2 Centauri]	5.42	F 0	11 32 57.664	+2.9039	+ 13	−47 18 11.25	−19.951	− 47
437	υ Leonis	4.47	K 0	11 33 49.519	+3.0718	+ 1	− 0 29 12.79	−19.877	+ 36
438	[π Chamael.]	5.74	F 0	11 34 44.110	+2.4742	−281	−75 33 31.31	−19.927	− 5
439	[ο Hydrae]	4.88	B 8	11 37 10.741	+2.9791	− 30	−34 24 23.08	−19.943	+ 1

Nr. 400. Doppelstern, Größe der Komponenten: 4.5 und 5.0.

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.ˢ0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
440	3 Draconis	5.48	K 0	11 39 5.322	+3.3533	− 77	+67 4 57.73	−19.921	+ 40
442	[λ Muscae]	3.80	A 5	11 42 42.945	+2.8274	−153	−66 23 26.13	−19.966	+ 20
441	χ Ursae maj.	3.85	K 0	11 42 50.260	+3.1712	−133	+48 7 3.48	−19.968	+ 20
443	[Centauri 65 G.]	4.22	G 0	11 43 33.173	+2.8988	− 25	−60 50 21.57	−20.027	− 35
444	β Leonis	2.23	A 2	11 45 56.998	+3.0608	−341	+14 54 47.23	−20.124	−118
445	β Virginis	3.80	F 8	11 47 31.064	+3.1252	+494	+ 2 6 30.55	−20.290	−276
446	[B Centauri]	4.71	K 0	11 48 5.089	+2.9929	−111	−44 50 3.83	−20.063	− 46
447	γ Ursae maj.	2.54	A 0	11 50 37.903	+3.1590	+107	+54 2 1.83	−20.024	+ 2
448	†[ε Chamael.]	5.05	B 9	11 56 33.953	+2.9636	−163	−77 52 55.75	−20.050	− 9
449	[Centauri 88 G.]	5.28	F 0	12 0 29.445	+3.1024	+267	−42 5 33.22	−20.166	−122
450	o Virginis	4.24	G 5	12 2 6.153	+3.0564	−147	+ 9 4 17.85	−20.005	+ 38
451	[Grb 1852]	5.96	K 0	12 2 10.678	+3.0604	+434	+77 14 48.41	−20.139	− 96
452	δ Centauri	2.88	B 3 p	12 5 11.237	+3.1052	− 44	−50 22 57.85	−20.057	− 18
453	ε Corvi	3.21	K 0	12 6 59.021	+3.0846	− 51	−22 16 49.98	−20.023	+ 11
454	4 H. Draconis	5.12	A 5	12 9 21.917	+2.8195	+ 23	+77 57 18.57	−20.004	+ 23
455	[δ Crucis]	3.08	B 3	12 11 53.612	+3.1807	− 51	−58 24 35.51	−20.043	− 27
456	δ Ursae maj.	3.44	A 2	12 12 25.029	+2.9735	+135	+57 22 16.90	−20.011	+ 3
457	[γ Corvi]	2.78	B 8	12 12 39.952	+3.0847	−112	−17 12 12.17	−19.996	+ 17
458	[2 Can. ven.]	5.80	K 5	12 13 4.529	+3.0094	+ 26	+40 59 58.08	−20.056	− 45
459	β Chamael.	4.38	B 5	12 14 43.514	+3.4990	−144	−78 58 24.98	−19.990	+ 12
460	η Virginis	4.00	A 0	12 16 47.057	+3.0694	− 42	− 0 19 40.68	−20.013	− 23
461	[6 Can. ven.]	5.22	K 0	12 22 50.910	+2.9573	− 67	+39 21 24.70	−19.980	− 36
462	α Crucis med.	1.58 2.09	B 1	12 23 11.671	+3.3309	− 44	−62 45 42.05	−19.972	− 31
463	[Hydr. 323 G.]	5.68	A 0	12 23 38.417	+3.1593	− 14	−32 29 32.50	−19.986	− 49
464	[σ Centauri]	4.16	B 3	12 24 43.854	+3.2403	− 36	−49 53 35.22	−19.960	− 33
466	20 Comae	5.72	A 2	12 26 39.531	+3.0154	+ 26	+21 14 1.04	−19.947	− 39
465	δ Corvi	3.11	A 0	12 26 42.296	+3.1036	−145	−16 10 33.74	−20.050	−142
467	[74 Ursae maj.]	5.44	A 5	12 27 6.818	+2.8036	− 96	+58 44 28.11	−19.816	+ 88
468	[γ Crucis]	1.61	M b	12 27 46.119	+3.3222	+ 26	−56 46 19.06	−20.174	−278
469	[γ Muscae]	4.04	B 5	12 28 47.966	+3.5741	− 82	−71 47 47.10	−19.907	− 22
470	8 Can. ven.	4.32	G 0	12 30 51.051	+2.8509	−624	+41 41 18.82	−19.582	+280
472	κ Draconis	3.88	B 5 p	12 30 53.423	+2.5647	−117	+70 7 27.19	−19.854	+ 7
471	β Corvi	2.84	G 5	12 31 10.670	+3.1497	− 4	−23 3 34.82	−19.917	− 59
473	24 Comae seq.	5.18	K 0	12 32 4.304	+3.0101	+ 2	+18 42 45.36	−19.829	+ 18
474	α Muscae	2.94	B 3	12 33 31.507	+3.5697	− 56	−68 47 59.62	−19.861	− 32
475	[χ Virginis]	4.78	K 0	12 36 5.762	+3.0963	− 49	− 7 39 37.00	−19.833	− 37
476	†γ Centauri	2.38	A 0	12 38 8.470	+3.3038	−205	−48 37 30.40	−19.786	− 20
477	†[γ Virg. med.]	3.65 3.68	F 0 F 0	12 38 34.084	+3.0399	−375	− 1 6 54.70	−19.755	+ 5
478	76 Ursae maj.	5.92	A 0	12 38 54.527	+2.6246	− 45	+63 2 51.76	−19.772	− 17
479	[Hydr. 330 G.]	5.73	K 2	12 40 45.122	+3.1961	− 26	−27 59 22.67	−19.778	− 50

Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.s0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		m		h m s	s		° ′ ″	″	
480	†[β Muscae]	3.26	B 3	12 42 31.083	+3.6710	— 53	—67 46 28.65	—19.731	— 31
481	β Crucis	1.50	B 1	12 44 8.467	+3.4988	— 59	—59 21 20.47	—19.700	— 27
482	n Centauri	4.34	A 5	12 50 2.940	+3.3192	+ 45	—39 50 51.71	—19.605	— 37
483	ε Ursae maj.	1.68	A o p	12 51 21.112	+2.6416	+136	+56 17 26.02	—19.553	— 11
484	δ Virginis	3.66	M a	12 52 31.786	+3.0218	—315	+ 3 43 42.41	—19.582	— 63
486	8 Draconis	5.27	F o	12 53 3.217	+2.3903	— 15	+65 46 8.59	—19.542	— 34
485	12 Can. ven. sq.	2.90	A o p	12 53 10.669	+2.8075	—199	+38 38 50.65	—19.456	+ 50
487	[δ Muscae]	3.63	K 2	12 58 2.456	+4.1108	+531	—71 13 13.51	—19.440	— 36
488	ε Virginis	2.95	K o	12 59 8.420	+2.9865	—185	+11 17 11.72	—19.362	+ 18
489	[ξ² Centauri]	4.40	B 3	13 3 20.243	+3.4977	— 35	—49 34 48.71	—19.313	— 30
490	ϑ Virginis	4.44	A o	13 6 47.354	+3.1057	— 24	— 5 12 49.96	—19.238	— 39
491	[17 Can. ven.]	6.04	F o	13 7 15.348	+2.7561	— 59	+38 49 21.09	—19.155	+ 32
492	43 Comae	4.32	G o	13 9 1.722	+2.8004	—602	+28 11 12.78	—18.263	+878
493	[η Muscae]	4.95	B 8	13 11 5.517	+4.0580	— 33	—67 34 19.55	—19.117	— 30
494	[20 Can. ven.]	4.66	F o	13 14 48.634	+2.6913	—107	+40 53 35.18	—18.977	+ 8
495	γ Hydrae	3.33	G 5	13 15 36.048	+3.2606	+ 51	—22 51 1.36	—19.017	— 53
496	ι Centauri	2.91	A 2	13 17 9.547	+3.3690	—294	—36 23 28.18	—19.011	— 92
497	ζ Urs. maj. pr.	2.40	A 2 p	13 21 28.410	+2.4171	+143	+55 14 36.38	—18.816	— 25
498	α Virginis	1.21	B 2	13 21 58.572	+3.1599	— 28	—10 50 36.70	—18.808	— 33
499	Grb 2001	6.07	K 5	13 24 34.573	+1.5283	+ 35	+72 42 28.31	—18.709	— 15
500	69 H. Urs. maj.	5.41	A o	13 26 12.957	+2.2029	—109	+60 15 37.50	—18.605	+ 37
501	ζ Virginis	3.44	A 2	13 31 34.982	+3.0566	—190	— 0 17 5.08	—18.430	+ 35
502	17 H. Can. ven.	4.96	F o	13 32 4.482	+2.6786	+ 64	+37 29 39.55	—18.461	— 13
503	[Chamael. 49 G.]	6.44	A o	13 33 55.605	+5.1083	— 49	—75 22 25.03	—18.398	— 14
505	[Grb 2029]	5.67	K o	13 35 42.886	+1.4398	— 86	+71 33 8.65	—18.321	0
504	ε Centauri	2.56	B 1	13 36 0.465	+3.7947	— 37	—53 9 25.86	—18.344	— 34
506	[i Centauri]	4.36	F 5	13 42 12.821	+3.4065	—371	—32 44 9.89	—18.240	—157
507	τ Bootis	4.51	F 5	13 44 21.794	+2.8508	—340	+17 45 35.93	—17.973	+ 28
509	η Ursae maj.	1.91	B 3	13 45 8.396	+2.3654	—119	+49 37 1.40	—17.991	— 20
508	[μ Centauri]	3.32	B 2 p	13 45 55.890	+3.6100	— 28	—42 10 13.81	—17.960	— 19
510	89 Virginis	5.11	K o	13 46 33.178	+3.2589	— 69	—17 49 51.67	—17.954	— 38
511	[i Draconis]	4.77	M a	13 49 39.040	+1.7523	0	+65 1 27.13	—17.795	— 2
512	ζ Centauri	3.06	B 2 p	13 51 43.292	+3.7369	— 70	—46 59 20.84	—17.770	— 61
513	η Bootis	2.80	G o	13 51 46.818	+2.8569	— 41	+18 42 9.84	—18.070	—364
514	[Cent. 294 G.]	4.68	K o	13 53 12.761	+4.3330	— 46	—63 23 18.91	—17.682	— 35
515	[47 Hydrae]	5.17	B 8	13 55 5.461	+3.3651	— 34	—24 40 31.53	—17.609	— 40
517	11 Bootis	6.12	A 3	13 58 24.589	+2.7211	— 57	+27 40 49.40	—17.419	+ 8
516	τ Virginis	4.34	A 2	13 58 32.425	+3.0531	+ 13	+ 1 50 19.77	—17.451	— 30
518	β Centauri	0.86	B 1	13 59 30.003	+4.2267	— 28	—60 4 47.87	—17.420	— 40
521	α Draconis	3.64	A o p	14 2 44.198	+1.6244	— 83	+64 40 1.00	—17.221	+ 16

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.ˢ0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
519	[π Hydrae]	3.48	K o	14 2 53.489	+3.4147	+ 30	−26 23 22.33	−17.383	− 153
520	ϑ Centauri	2.26	K o	14 3 5.016	+3.5271	− 439	−36 4 15.26	−17.753	− 531
522	*d* Bootis	4.82	F 5	14 7 37.069	+2.7368	− 12	+25 22 47.18	−17.085	− 69
524	4 Ursae min.	5.00	K o	14 9 3.207	−0.2469	− 112	+77 50 3.04	−16.917	+ 32
523	ϰ Virginis	4.31	K o	14 9 38.305	+3.1996	+ 4	− 9 59 26.55	−16.787	+ 134
525	ι Virginis	4.16	F 5	14 12 48.742	+3.1449	− 13	− 5 42 37.26	−17.202	− 431
526	α Bootis	0.24	K o	14 12 52.701	+2.7364	− 775	+19 29 56.99	−18.769	−2001
528	[ι Bootis]	4.78	A 5	14 14 0.401	+2.1250	− 159	+51 38 52.49	−16.628	+ 86
527	λ Bootis	4.26	A o	14 14 3.974	+2.2814	− 177	+46 22 3.45	−16.559	+ 152
529	[υ Centauri]	4.41	B 5	14 16 2.728	+4.1809	− 47	−56 6 25.15	−16.654	− 39
530	[Circini 10 G.]	5.71	A 2 p	14 20 0.813	+4.9585	− 41	−67 55 10.72	−16.454	− 36
531	ϑ Bootis	4.06	F 8	14 23 7.248	+2.0428	− 255	+52 7 55.11	−16.665	− 405
532	[52 Hydrae]	5.00	B 8	14 24 35.611	+3.5111	− 28	−29 13 6.96	−16.215	− 30
533	[φ Virginis]	4.97	K o	14 25 3.434	+3.0910	− 90	− 1 57 19.83	−16.169	− 7
534	ρ Bootis	3.78	K o	14 29 12.089	+2.5859	− 76	+30 38 17.81	−15.831	+ 113
535	γ Bootis	3.00	F o	14 29 37.353	+2.4164	− 93	+38 34 27.12	−15.777	+ 144
536	[Grb 2125]	6.18	F o	14 30 3.418	+1.6293	− 58	+60 29 37.93	−15.880	+ 18
537	η Centauri	2.65	B 3 p + A 2 p	14 31 37.424	+3.8058	− 36	−41 53 27.81	−15.851	− 36
538	*α Centauri	1.70 0.33	K 5 G o	14 35 26.430	+4.0712	−4888	−60 35 5.53	−14.901	+ 707
540	[33 Bootis]	5.39	A o	14 36 34.031	+2.2326	− 67	+44 40 1.13	−15.571	− 26
539	[α Circini]	3.41	F o	14 37 32.976	+4.8358	− 320	−64 42 39.49	−15.730	− 239
541	[α Lupi]	2.89	B 2	14 37 51.676	+3.9859	− 20	−47 7 40.10	−15.510	− 36
543	†ζ Boot. med.	4.83 4.43	A 2	14 38 14.094	+2.8648	+ 37	+13 59 19.98	−15.480	− 27
545	μ Virginis	3.95	F 5	14 39 50.547	+3.1610	+ 69	− 5 23 38.99	−15.690	− 326
544	[c¹ Centauri]	4.13	K o	14 39 55.079	+3.6661	− 61	−34 54 44.59	−15.557	− 198
542	α Apodis	3.81	K 5	14 40 10.911	+7.4048	− 56	−78 47 18.03	−15.379	− 35
546	[*b* Lupi]	5.20	K o	14 42 44.454	+4.1907	− 24	−52 7 36.42	−15.292	− 92
547	109 Virginis	3.76	A o	14 43 9.781	+3.0328	− 75	+ 2 8 55.37	−15.214	− 39
548	α Librae	2.90	A 3	14 47 29.958	+3.3175	− 77	−15 47 22.17	−14.998	− 74
549	Grb 2164	5.67	K 2	14 49 53.334	+1.5218	− 170	+59 32 28.22	−14.655	+ 129
550	β Ursae min.	2.24	K 5	14 50 51.716	−0.1823	− 78	+74 24 17.19	−14.720	+ 7
551	Pi XIV, 221	5.77	A o	14 53 20.416	+2.8316	− 10	+14 41 29.63	−14.597	− 18
552	β Lupi	2.81	B 2 p	14 54 31.507	+3.9245	− 51	−42 53 23.31	−14.568	− 60
553	[ϰ Centauri]	3.35	B 3	14 55 11.007	+3.8996	− 21	−41 51 39.05	−14.501	− 33
554	[2 H. Urs. min.]	4.86	M b	14 56 36.330	+0.9505	− 147	+66 10 30.41	−14.348	+ 34
555	β Bootis	3.63	G 5	14 59 38.893	+2.2600	− 36	+40 37 48.42	−14.238	− 43
556	γ Scorpii	3.41	M b	15 0 29.644	+3.5098	− 57	−25 2 37.11	−14.198	− 55
557	ψ Bootis	4.67	K o	15 1 49.891	+2.5708	− 131	+27 11 3.83	−14.075	− 15
558	ζ Lupi	3.50	K o	15 7 53.308	+4.3042	− 133	−51 52 6.85	−13.750	− 73
559	[ι Librae]	4.66	A o p	15 8 44.353	+3.4182	− 32	−19 33 44.08	−13.670	− 47

Nr. 538. Schwerpunkt des Systems. Abstand vom Schwerpunkt nach den Elementen von Lohse in den Publ. d. Astrophys. Obs. Potsdam Nr. 58:

heller Stern: 1939.0 $\Delta\alpha = +0.^{s}083$ $\Delta\delta = -2.''56$
1940.0 $= +0.049$ $= -2.90$

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.s0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ' "	"	
562	[3 Serpentis]	5.44	K o	15 12 9.319	+2.9820	— 12	+ 5 9 52.29	—13.408	— 7
561	[β Circini]	4.16	A 3	15 12 43.252	+4.6899	—130	—58 34 30.61	—13.514	— 149
563	δ Bootis	3.54	K o	15 13 2.616	+2.4194	+ 73	+33 32 28.79	—13.465	— 121
560	γ Triang. austr.	3.06	A o	15 13 11.129	+5.5899	—101	—68 27 22.52	—13.372	— 37
564	β Librae	2.74	B 8	15 13 43.279	+3.2278	— 64	— 9 9 32.99	—13.327	— 27
565	1 H. Urs. min.	5.23	G o	15 13 55.843	+0.6870	+387	+67 34 40.93	—13.681	— 395
566	φ¹ Lupi	3.59	K 5	15 17 55.647	+3.8040	— 82	—36 2 29.84	—13.117	— 95
569	γ Ursae min.	3.14	A 2	15 20 48.601	—0.0994	— 32	+72 3 3.72	—12.813	+ 16
568	μ Bootis	4.47 6.66	F o K o	15 22 11.131	+2.2665	—123	+37 35 24.36	—12.656	+ 80
570	[τ¹ Serpentis]	5.46	M a	15 22 57.572	+2.7823	— 11	+15 38 28.30	—12.708	— 24
571	ι Draconis	3.47	K o	15 23 34.208	+1.3347	— 5	+59 10 45.01	—12.629	+ 14
567	[κ¹ Apodis]	5.65	B 5 p	15 24 49.252	+6.5189	+ 6	—73 10 50.07	—12.596	— 37
572	β Coron. bor.	3.72	F o p	15 25 18.835	+2.4741	—131	+29 18 53.44	—12.449	+ 76
573	ν¹ Bootis	5.15	K 5	15 28 44.267	+2.1552	+ 10	+41 2 24.10	—12.302	— 13
576	[ϑ Coron. bor.]	4.17	B 5	15 30 28.149	+2.4190	— 17	+31 33 49.59	—12.195	— 26
575	†γ Lupi	2.95	B 3	15 31 3.974	+3.9941	— 26	—40 57 48.25	—12.167	— 39
574	[ε Triang. austr.]	4.11	K o	15 31 6.673	+5.4788	+ 30	—66 6 51.27	—12.206	— 82
578	α Coron. bor.	2.31	A o	15 32 6.277	+2.5403	+ 93	+26 55 7.72	—12.153	— 98
577	γ Librae	4.02	K o	15 32 6.615	+3.3552	+ 43	—14 35 14.83	—12.052	+ 3
579	[3 H. Scorpii]	3.78	K 2	15 33 18.903	+3.6402	— 11	—27 56 4.64	—11.981	— 11
580	[φ Bootis]	5.41	G 5	15 35 38.146	+2.1550	+ 58	+40 33 3.64	—11.755	+ 52
581	†[γ Coron. bor.]	3.93	A o	15 40 10.852	+2.5199	— 74	+26 29 15.39	—11.450	+ 34
582	α Serpentis	2.75	K o	15 41 15.696	+2.9547	+ 91	+ 6 36 58.51	—11.363	+ 42
583	β Serpentis	3.74	A 2	15 43 22.289	+2.7691	+ 51	+15 36 41.08	—11.308	— 54
587	[12 H. Dracon.]	5.13	A 2	15 45 43.889	+0.9133	+ 55	+62 47 15.32	—11.144	— 61
584	κ Serpentis	4.28	K 5	15 45 59.595	+2.7008	— 31	+18 19 43.08	—11.161	— 98
590	ζ Ursae min.	4.34	A 2	15 46 11.605	—2.1585	+ 60	+77 58 59.04	—11.049	— 1
585	μ Serpentis	3.63	A o	15 46 26.050	+3.1304	— 59	— 3 14 41.89	—11.063	— 32
586	[χ Lupi]	4.11	B 9	15 47 4.531	+3.8097	— 15	—33 26 34.21	—11.015	— 30
588	ε Serpentis	3.75	A 2	15 47 46.401	+2.9902	+ 84	+ 4 39 36.03	—10.874	+ 60
589	β Triang. austr.	3.04	F o	15 49 44.941	+5.2791	—278	—63 14 40.58	—11.196	— 407
591	[γ Serpentis]	3.86	F 5	15 53 38.047	+2.7711	+214	+15 51 33.56	—11.794	—1294
593	ε Coron. bor.	4.22	K o	15 55 3.654	+2.4834	— 61	+27 3 11.90	—10.462	— 69
592	[π Scorpii]	3.00	B 2	15 55 9.365	+3.6275	— 15	—25 56 24.85	—10.423	— 37
595	[Grb 2296]	4.96	A 5	15 56 20.389	+1.4219	—187	+54 55 17.27	—10.187	+ 110
594	δ Scorpii	2.54	B o	15 56 43.331	+3.5464	— 8	—22 26 59.32	—10.305	— 36
598	ϑ Draconis	4.11	F 8	16 0 44.609	+1.1239	—403	+58 43 39.64	— 9.626	+ 339
597	β Scorpii	2.90 5.06	B 1	16 1 53.150	+3.4872	— 7	—19 38 24.38	— 9.906	— 27
596	[δ Normae]	4.84	A 3 p	16 2 10.252	+4.2364	— 5	—45 0 35.35	— 9.851	+ 6
599	[ϑ Lupi]	4.33	B 3	16 2 34.739	+3.9364	— 29	—36 38 16.80	— 9.867	— 41

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.ˢ0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
601	[φ Herculis]	4.26	B 9 p	16 6 50.806	+1.8903	− 23	+45 5 37.91	−9.468	+ 31
600	[ϰ Normae]	5.09	K o	16 8 39.163	+4.7239	− 42	−54 28 30.86	−9.425	− 65
602	[δ Triang. austr.]	4.03	G o	16 9 52.106	+5.4538	+ 8	−63 31 55.97	−9.291	− 26
603	δ Ophiuchi	3.03	M a	16 11 8.797	+3.1435	− 30	− 3 32 19.59	−9.316	−150
606	19 Ursae min.	5.51	B 8	16 12 32.186	−1.7196	− 4	+76 1 54.86	−9.045	+ 12
605	ε Ophiuchi	3.34	K o	16 15 5.467	+3.1736	+ 53	− 4 32 43.40	−8.826	+ 31
604	γ² Normae	4.14	K o	16 15 15.863	+4.4835	−190	−50 0 28.35	−8.906	− 61
607	[σ Scorpii]	3.08	B 1	16 17 28.570	+3.6453	− 11	−25 26 53.65	−8.704	− 33
608	τ Herculis	3.91	B 5	16 17 54.366	+1.8034	− 9	+46 27 27.68	−8.604	+ 32
609	γ Herculis	3.79	F o	16 19 13.666	+2.6461	− 36	+19 17 42.35	−8.492	+ 40
612	[η Ursae min.]	5.04	F o	16 19 15.736	−1.7619	−221	+75 53 48.21	−8.274	+255
610	[ζ Triang. austr.]	4.93	G o	16 21 52.711	+6.4405	+366	−69 56 59.67	−8.238	+ 84
613	[ω Herculis]	4.53	A o p	16 22 35.963	+2.7685	+ 28	+14 10 20.08	−8.333	− 68
614	[Grb 2343]	5.66	A 2	16 23 5.186	+1.3124	+ 19	+55 20 35.27	−8.207	+ 18
615	†η Draconis	2.89	G 5	16 23 9.623	+0.8114	− 28	+61 39 6.86	−8.159	+ 61
611	γ Apodis	3.90	K o	16 24 1.877	+9.1799	−384	−78 45 50.73	−8.222	− 72
616	α Scorpii	1.22	M a + A 3	16 25 39.786	+3.6776	− 7	−26 17 54.23	−8.048	− 28
618	β Herculis	2.81	K o	16 27 35.798	+2.5790	− 69	+21 37 16.36	−7.885	− 21
617	†[λ Ophiuchi]	3.85	A o	16 27 50.092	+3.0254	− 23	+ 2 6 56.79	−7.935	− 90
619	A Draconis	4.98	B 8 p	16 28 5.563	−0.1203	− 51	+68 54 0.56	−7.789	+ 35
620	[τ Scorpii]	2.91	B o	16 32 4.832	+3.7334	− 11	−28 5 28.73	−7.535	− 33
621	σ Herculis	4.25	A o	16 32 8.154	+1.9344	− 6	+42 33 42.53	−7.459	+ 38
623	[Grb 2373]	6.39	G 5	16 33 14.195	−2.5920	−324	+77 34 8.70	−7.134	+274
622	ζ Ophiuchi	2.70	B o	16 33 47.849	+3.3031	+ 9	−10 26 42.48	−7.340	+ 22
624	[24 Scorpii]	5.04	K o	16 38 2.510	+3.4689	− 18	−17 37 32.63	−7.019	− 3
626	η Herculis	3.61	K o	16 40 48.249	+2.0571	+ 35	+39 2 14.24	−6.873	− 84
625	α Triang. austr.	1.88	K 2	16 42 11.128	+6.3447	+ 33	−68 55 7.53	−6.724	− 49
627	Grb 2377	4.88	F o	16 44 8.274	+1.1381	+ 28	+56 53 24.66	−6.456	+ 58
628	ε Scorpii	2.36	K o	16 46 12.426	+3.8839	−501	−34 11 3.44	−6.598	−256
629	49 Herculis	6.41	A o p	16 49 18.160	+2.7313	+ 12	+15 4 30.32	−6.092	− 6
630	†ζ² Scorpii	3.75	K 5	16 50 17.015	+4.2181	−133	−42 15 31.87	−6.242	−238
631	ζ Arae	3.06	K 5	16 53 33.807	+4.9611	− 29	−55 53 46.27	−5.777	− 48
632	[ε¹ Arae]	4.15	K 2	16 54 42.756	+4.7772	− 19	−53 4 9.13	−5.641	− 8
633	ϰ Ophiuchi	3.42	K o	16 54 46.774	+2.8393	−198	+ 9 28 6.25	−5.641	− 13
634	ε Herculis	3.92	A o	16 57 57.303	+2.2955	− 35	+31 0 54.13	−5.336	+ 24
635	[60 Herculis]	4.91	A 3	17 2 32.899	+2.7818	+ 34	+12 49 23.32	−4.987	− 15
636	[Grb 2415]	6.27	A 2	17 5 47.294	+1.9570	− 29	+40 35 41.47	−4.725	− 28
637	†η Ophiuchi	2.63	A 2	17 6 52.633	+3.4397	+ 23	−15 39 4.01	−4.514	+ 90
638	[η Scorpii]	3.44	F 2	17 7 46.779	+4.2955	+ 17	−43 9 39.20	−4.826	−298
639	ζ Draconis	3.22	B 5	17 8 36.362	+0.1728	− 29	+65 47 22.78	−4.436	+ 22

Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Verände-rung	Jährl. Eigen-bew. in 0.s0001	Dekl. 1939.0	Jährl. Verände-rung	Jährl. Eigen-bew. in 0."001
		m		h m s	s		° ′ ″	″	
640	†α Herculis	3.48 5.39	M b	17 11 51.894	+2.7353	− 8	+14 27 30.21	−4.150	+ 29
641	δ Herculis	3.16	A 2	17 12 31.519	+2.4643	− 15	+24 54 35.57	−4.281	−159
643	π Herculis	3.36	K 5	17 12 55.306	+2.0896	− 21	+36 52 36.55	−4.087	+ 1
642	[ι Apodis]	5.60	B 8	17 15 16.777	+6.6855	− 14	−70 3 44.24	−3.913	− 27
644	ϑ Ophiuchi	3.37	B 3	17 18 15.632	+3.6835	− 7	−24 56 25.68	−3.655	− 25
645	β Arae	2.80	K 2	17 20 13.407	+4.9850	− 14	−55 28 29.13	−3.503	− 42
647	[27 H. Ophiuchi]	4.61	F 0	17 23 23.624	+3.1834	− 58	− 5 2 3.67	−3.239	− 51
646	[*d* Ophiuchi]	4.37	F 5	17 23 27.360	+3.8297	+ 6	−29 48 49.39	−3.327	−145
650	[*x* Herculis]	5.81	A 2	17 25 7.184	+1.5903	+ 2	+48 18 36.68	−3.057	− 19
648	δ Arae	3.79	B 8	17 25 35.210	+5.4142	− 70	−60 38 7.70	−3.100	−101
649	[υ Scorpii]	2.80	B 3	17 26 36.668	+4.0760	− 24	−37 14 57.13	−2.949	− 39
651	α Arae	2.97	B 3 p	17 27 7.315	+4.6359	− 38	−49 49 49.03	−2.959	− 94
653	β Draconis	2.99	G 0	17 29 3.210	+1.3556	− 15	+52 20 44.79	−2.689	+ 10
652	λ Scorpii	1.71	B 2	17 29 27.757	+4.0719	− 14	−37 3 40.58	−2.695	− 32
655	[ν¹ Draconis]	4.98	A 5	17 30 58.451	+1.1817	+176	+55 13 30.87	−2.481	+ 51
657	[ν² Draconis]	4.95	A 5	17 31 3.889	+1.1829	+181	+55 12 49.78	−2.472	+ 52
656	α Ophiuchi	2.14	A 5	17 32 6.103	+2.7845	+ 80	+12 36 10.53	−2.667	−233
659	[*f* Draconis]	5.21	K 0	17 32 12.244	−0.2422	− 33	+68 10 26.39	−2.291	+134
654	ϑ Scorpii	2.04	F 0	17 32 55.895	+4.3088	0	−42 57 40.61	−2.380	− 18
658	ξ Serpentis	3.64	A 5	17 34 5.510	+3.4344	− 34	−15 21 42.93	−2.326	− 65
664	ω Draconis	4.87	F 5	17 37 18.337	−0.3518	+ 9	+68 47 10.81	−1.658	+323
663	ι Herculis	3.79	B 3	17 37 44.524	+1.6936	− 5	+46 2 15.91	−1.947	− 4
660	[ϰ Scorpii]	2.51	B 2	17 38 15.882	+4.1488	− 15	−39 0 1.79	−1.924	− 26
662	[μ Arae]	5.26	G 5	17 39 17.847	+4.7616	− 28	−51 48 14.32	−2.016	−208
661	η Pavonis	3.58	K 0	17 39 44.411	+5.8863	− 22	−64 41 50.38	−1.825	− 56
665	β Ophiuchi	2.94	K 0	17 40 27.487	+2.9634	− 28	+ 4 35 28.20	−1.554	+153
670	ψ Draconis	4.90 6.07	F 5	17 43 1.100	−1.0690	+ 33	+72 10 45.55	−1.751	−267
666	[ι¹ Scorpii]	3.14	F 5 p	17 43 18.907	+4.1945	− 10	−40 6 19.00	−1.461	− 3
667	μ Herculis	3.48	G 5	17 44 4.184	+2.3476	−240	+27 45 18.38	−2.143	−751
668	[γ Ophiuchi]	3.74	A 0	17 44 49.988	+3.0080	− 16	+ 2 43 43.12	−1.403	− 77
669	[*G* Scorpii]	3.25	K 2	17 45 42.252	+4.0831	+ 41	−37 1 33.16	−1.223	+ 26
675	35 Draconis	5.04	F 5	17 52 10.595	−2.6877	+109	+76 58 19.84	−0.443	+241
671	ξ Draconis	3.90	K 0	17 52 28.425	+1.0378	+120	+56 52 53.92	−0.581	+ 77
672	ϑ Herculis	3.99	K 0	17 54 9.625	+2.0574	+ 4	+37 15 27.07	−0.506	+ 5
676	γ Draconis	2.42	K 5	17 55 11.341	+1.3930	− 9	+51 29 43.08	−0.443	− 22
674	[ξ Herculis]	3.82	K 0	17 55 23.637	+2.3314	+ 66	+29 15 11.20	−0.428	− 25
673	ν Ophiuchi	3.50	K 0	17 55 40.039	+3.3024	− 7	− 9 46 3.94	−0.497	−118
677	67 Ophiuchi	3.92	B 5 p	17 57 35.357	+3.0046	0	+ 2 55 58.53	−0.224	− 13
679	γ Sagittarii	3.07	K 0	18 1 53.278	+3.8531	− 47	−30 25 36.56	−0.029	−194
678	[Apodis 66 G.]	5.69	K 5	18 2 43.292	+8.3870	− 41	−75 53 47.36	−0.032	−270

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Verände-rung	Jährl. Eigen-bew. in 0ˢ.0001	Dekl. 1939.0	Jährl. Verände-rung	Jährl. Eigen-bew. in 0".001
		m		h m s	s		° ' "	"	
680	72 Ophiuchi	3.73	A 3	18 4 27.422	+2.8440	— 42	+ 9 33 13.29	+0.468	+ 78
681	o Herculis	3.83	A 0	18 5 9.751	+2.3403	+ 2	+28 45 9.90	+0.451	0
682	μ Sagittarii	4.01	B 8 p	18 10 6.874	+3.5873	— 3	−21 4 35.93	+0.881	— 3
683	[η Sagittarii]	3.16	M b	18 13 29.901	+4.0586	— 117	−36 46 54.86	+1.016	−163
685	[36 Draconis]	5.03	F 5	18 13 32.729	+0.3452	+ 533	+64 22 34.98	+1.215	+ 31
684	[Grb 2533]	5.42	B 5	18 13 44.883	+1.8657	— 6	+42 8 14.81	+1.195	— 7
687	[δ Sagittarii]	2.84	K 0	18 17 5.316	+3.8407	+ 27	−29 51 21.35	+1.461	— 32
686	[ξ Pavonis]	4.25	K 2	18 17 36.249	+5.5267	— 26	−61 31 26.03	+1.555	+ 17
688	η Serpentis	3.42	K 0	18 18 9.161	+3.1038	— 371	— 2 54 58.53	+0.886	−699
689	ε Sagittarii	1.95	A 0	18 20 7.375	+3.9820	— 30	−34 24 55.31	+1.631	−127
690	109 Herculis	3.92	K 0	18 21 5.883	+2.5565	+ 140	+21 44 25.73	+1.586	−257
693	†[φ Draconis]	4.24	A 0 p	18 21 38.052	−0.8601	— 17	+71 18 20.50	+1.922	+ 33
695	χ Draconis	3.69	F 8	18 22 9.494	−1.0816	+1172	+72 42 24.66	+1.574	−361
691	α Telescopii	3.76	B 3	18 22 27.029	+4.4482	— 21	−46 0 14.51	+1.913	— 48
694	†*b* Draconis	4.85	A 2	18 23 1.203	+0.8763	— 45	+58 45 53.37	+2.068	+ 58
692	[λ Sagittarii]	2.94	K 0	18 24 12.337	+3.7020	— 37	−25 27 26.11	+1.925	−188
696	[2 H. Scuti]	4.73	A 3	18 25 43.218	+3.4188	— 3	−14 36 22.64	+2.247	+ 2
697	[ϑ Coron. austr.]	4.69	G 5	18 29 8.788	+4.2831	+ 15	−42 21 30.61	+2.518	— 24
700	[Grb 2655]	5.84	K 0	18 32 42.420	−2.8944	— 10	+77 30 2.97	+2.848	— 3
699	α Lyrae	0.14	A 0	18 34 52.373	+2.0315	+ 176	+38 43 32.82	+3.319	+281
698	ζ Pavonis	4.10	K 0	18 35 54.966	+7.0117	— 23	−71 29 2.09	+2.951	−178
701	[Grb 2640]	6.00	A 3	18 36 1.830	+0.1878	+ 18	+65 26 2.36	+3.222	+ 84
702	[5 H. Scuti]	5.09	G 5	18 40 11.926	+3.2671	+ 13	— 8 20 13.40	+3.507	+ 9
703	110 Herculis	4.26	F 5	18 43 2.146	+2.5814	— 12	+20 29 11.55	+3.401	−340
704	λ Pavonis	4.42	B 2	18 46 34.160	+5.5591	— 25	−62 15 36.64	+4.017	— 28
705	*β Lyrae	var.	B 8 p + B 2 p	18 47 49.650	+2.2150	+ 3	+33 17 26.79	+4.151	— 2
707	o Draconis	4.78	K 0	18 50 18.163	+0.8859	+ 105	+59 18 47.89	+4.389	+ 25
706	σ Sagittarii	2.14	B 3	18 51 28.995	+3.7194	+ 4	−26 22 27.88	+4.402	— 63
709	ϑ Serpent. pr.	4.50	A 5	18 53 11.212	+2.9822	+ 29	+ 4 7 21.56	+4.638	+ 28
711	**R* Lyrae	var.	M b	18 53 28.764	+1.8263	+ 28	+43 51 52.93	+4.711	+ 76
708	λ Telescopii	5.03	B 9	18 53 35.147	+4.7997	+ 3	−53 1 13.20	+4.658	+ 14
710	[ξ Sagittarii]	3.61	K 0	18 54 5.472	+3.5785	+ 18	−21 11 19.05	+4.671	— 16
714	[υ Draconis]	4.91	K 0	18 55 9.126	−0.7322	+ 103	+71 12 57.48	+4.818	+ 41
713	γ Lyrae	3.30	A 0 p	18 56 39.667	+2.2440	— 4	+32 36 16.94	+4.904	— 2
712	[ε Aquilae]	4.21	K 0	18 56 51.183	+2.7222	— 42	+14 59 2.35	+4.841	— 80
715	†[ζ Sagittarii]	2.71	A 2	18 58 43.874	+3.8164	— 21	−29 58 8.74	+5.082	+ 2
716	ζ Aquilae	3.02	A 0	19 2 36.354	+2.7570	— 7	+13 46 16.78	+5.307	−101
717	λ Aquilae	3.55	B 9	19 3 0.707	+3.1834	— 16	— 4 58 31.94	+5.355	— 87
719	[ι Lyrae]	5.13	B 5	19 5 7.481	+2.1408	— 3	+36 0 12.38	+5.616	— 3
718	α Coron. austr.	4.12	A 2	19 5 19.404	+4.0809	+ 60	−38 0 5.57	+5.527	−109

Nr. 705. Größe: Max. 3.4, Min. 4.1. Nr. 711. Größe: Max. 4.0, Min. 4.7, Größe in Harvard 50 = 4.32.

Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.s0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
720	π Sagittarii	3.02	F 2	19 6 8.208	+3.5674	−5	−21 7 20.29	+5.669	−35
721	†[Pav. 60 G.]	5.57	A 2	19 11 4.758	+6.0368	−7	−66 46 8.90	+6.096	−21
723	δ Draconis	3.24	K 0	19 12 32.785	+0.0158	+166	+67 33 14.98	+6.327	+88
722	[d Sagittarii]	5.03	K 0	19 14 4.009	+3.5097	−12	−19 3 47.01	+6.357	−9
724	ϑ Lyrae	4.46	K 0	19 14 15.001	+2.0818	−7	+38 1 26.34	+6.379	−1
725	ω Aquilae	5.14	A 5	19 14 57.177	+2.8157	−3	+11 29 2.44	+6.452	+13
726	ϰ Cygni	3.98	K 0	19 15 41.636	+1.3869	+69	+53 15 18.50	+6.620	+120
729	τ Draconis	4.63	K 0	19 16 44.251	−1.1510	−327	+73 14 34.08	+6.696	+109
727	[υ Sagittarii]	4.58	B 8 p + F 2 p	19 18 14.093	+3.4359	0	−16 4 15.80	+6.708	−2
728	α Sagittarii	4.11	B 8	19 19 39.743	+4.1567	+18	−40 43 57.14	+6.709	−118
730	δ Aquilae	3.44	F 0	19 22 25.363	+3.0244	+167	+ 2 59 30.07	+7.136	+82
731	[Sagittar. 186 G.]	5.68	B 9	19 23 5.284	+3.7912	+7	−29 51 56.05	+7.062	−47
734	[Grb 2900]	6.00	A 2	19 25 25.315	−3.6203	+97	+79 28 55.92	+7.264	−35
733	ι Cygni	3.94	A 2	19 28 10.114	+1.5127	+22	+51 35 56.34	+7.647	+125
732	*β Cygni	3.24	K 0 + A 0	19 28 15.643	+2.4191	−2	+27 49 49.13	+7.522	−8
735	[ι Telescopii]	5.02	K 0	19 30 41.620	+4.4495	−41	−48 13 57.47	+7.686	−40
736	h Sagittarii	4.66	B 9	19 32 59.812	+3.6507	+46	−25 1 11.71	+7.890	−22
737	[ϰ Aquilae]	5.04	B 0	19 33 36.646	+3.2275	+3	− 7 9 52.36	+7.961	0
738	ϑ Cygni	4.64	F 5	19 34 48.314	+1.6079	−29	+50 4 43.95	+8.304	+247
740	[15 Cygni]	5.02	K 0	19 42 4.568	+2.1634	+59	+37 12 21.56	+8.671	+36
739	[ν Telescopii]	5.52	A 5	19 43 2.770	+4.9007	+86	−56 30 40.46	+8.575	−136
742	†δ Cygni	2.97	A 0	19 43 4.129	+1.8756	+51	+44 58 51.06	+8.753	+40
741	γ Aquilae	2.80	K 2	19 43 21.565	+2.8518	+9	+10 27 47.90	+8.736	0
743	δ Sagittae	3.78	M a + A 0	19 44 40.052	+2.6749	+4	+18 22 57.24	+8.852	+13
744	[51 Aquilae]	5.55	F 0	19 47 25.503	+3.3009	−21	−10 55 10.67	+9.096	+41
745	α Aquilae	0.89	A 5	19 47 48.407	+2.9266	+359	+ 8 42 21.14	+9.468	+384
747	†ε Draconis	3.99	K 0	19 48 23.378	−0.1997	+156	+70 6 45.05	+9.160	+30
746	*[η Aquilae]	var.	G 0 p	19 49 21.967	+3.0561	+6	+ 0 50 51.56	+9.197	−9
749	β Aquilae	3.90	K 0	19 52 18.999	+2.9464	+25	+ 6 15 11.08	+8.955	−480
748	ε Pavonis	4.10	A 0	19 53 34.136	+6.9507	+148	−73 4 27.53	+9.399	−132
750	†ψ Cygni	4.80	A 3	19 54 3.188	+1.5509	−43	+52 16 34.48	+9.537	−31
751	ϑ¹ Sagittarii	4.39	B 3	19 55 46.110	+3.9042	−12	−35 26 34.90	+9.664	−36
752	γ Sagittae	3.71	K 5	19 56 2.622	+2.6675	+43	+19 19 30.89	+9.745	+24
753	[c Sagittarii]	4.60	M b	19 58 54.595	+3.6891	+21	−27 52 51.63	+9.957	+18
755	[ξ Telescopii]	4.86	M a	20 2 43.105	+4.5970	−44	−53 3 26.78	+10.225	−2
754	δ Pavonis	3.64	G 5	20 2 45.615	+5.8923	+1965	−66 20 24.66	+9.072	−1158
756	ϑ Aquilae	3.37	A 0	20 8 9.478	+3.0951	+22	− 1 0 13.54	+10.639	+6
759	ϰ Cephei	4.40	B 9	20 10 58.708	−2.0074	+12	+77 31 42.96	+10.868	+27
757	o¹ Cygni sq.	3.95	K 0 + B 8	20 11 42.643	+1.8892	+4	+46 33 19.55	+10.896	+1
758	[33 Cygni]	4.32	A 3	20 11 58.856	+1.3948	+74	+56 22 49.90	+11.000	+85

Nr. 732. Größe und Spektrum beziehen sich auf die hellere Komponente. Die entsprechenden Werte für die schwächere Komponente 9. Nr. 746. Größe: Max. 3.7, Min. 4.5.

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.ˢ0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.″001
		m		h m s	s		° ′ ″	″	
760	24 Vulpeculae	5.45	K o	20 14 10.457	+2.5672	+ 12	+24 28 55.30	+11.056	− 19
761	α^2 Capricorni	3.77	G 5	20 14 40.301	+3.3284	+ 40	−12 44 6.75	+11.123	+ 11
762	[β Capricorni]	3.25	G o + A o	20 17 35.132	+3.3703	+ 23	−14 58 31.37	+11.329	+ 6
763	[$\varkappa^1$ Sagittarii]	5.64	A o	20 18 19.407	+4.0759	+ 37	−42 14 36.78	+11.280	− 96
765	γ Cygni	2.32	F 8 p	20 20 2.303	+2.1531	+ 4	+40 3 37.79	+11.499	0
764	α Pavonis	2.12	B 3	20 20 50.070	+4.7510	+ 11	−56 55 56.26	+11.471	− 85
766	†[ρ Capric.]	4.96	F o	20 25 22.996	+3.4217	− 14	−18 0 59.90	+11.863	− 16
767	ϑ Cephei	4.28	A 5	20 28 33.694	+1.0077	+ 63	+62 47 18.98	+12.088	− 14
768	ε Delphini	3.98	B 5	20 30 17.917	+2.8659	+ 5	+11 5 40.88	+12.198	− 25
770	73 Draconis	5.18	A 2 p	20 32 20.147	−0.7822	+ 16	+74 44 45.28	+12.352	− 12
769	α Indi	3.21	K o	20 33 16.988	+4.2207	+ 33	−47 30 21.15	+12.488	+ 60
771	†β Delphini	3.72	F 5	20 34 41.299	+2.8130	+ 74	+14 22 54.29	+12.488	− 36
772	[ϰ Delphini]	5.23	G 5	20 36 9.996	+2.9136	+ 212	+ 9 52 12.50	+12.644	+ 19
773	υ Capricorni	5.33	M a	20 36 34.780	+3.4151	− 17	−18 21 17.10	+12.637	− 16
774	α Delphini	3.86	B 8	20 36 48.279	+2.7865	+ 45	+15 41 44.31	+12.662	− 6
777	α Cygni	1.33	A 2 p	20 39 21.106	+2.0452	+ 4	+45 3 41.28	+12.840	− 1
775	β Pavonis	3.60	A 5	20 39 29.151	+5.4161	− 71	−66 25 28.18	+12.851	+ 1
776	[η Indi]	4.70	F o	20 39 34.130	+4.4077	+ 157	−52 8 26.57	+12.782	− 73
778	[δ Delphini]	4.53	A 5	20 40 36.658	+2.8008	− 14	+14 51 16.31	+12.877	− 48
779	[ψ Capricorni]	4.26	F 8	20 42 29.228	+3.5523	− 44	−25 29 29.49	+12.892	− 157
780	ε Cygni	2.64	K o	20 43 44.549	+2.4278	+ 290	+33 44 26.91	+13.461	+ 328
782	[6 H. Cephei]	4.63	G o	20 43 50.314	+1.4890	− 86	+57 21 36.75	+12.905	− 235
783	η Cephei	3.59	K o	20 44 3.127	+1.2211	+ 129	+61 36 4.83	+13.972	+ 819
781	ε Aquarii	3.83	A o	20 44 22.512	+3.2473	+ 17	− 9 43 12.85	+13.147	− 28
784	†λ Cygni	4.47	B 5	20 45 1.889	+2.3366	+ 5	+36 15 56.68	+13.218	0
785	β Indi	3.72	K o	20 50 3.313	+4.6921	0	−58 41 9.37	+13.518	− 27
786	32 Vulpeculae	5.24	K 5	20 51 57.569	+2.5568	− 4	+27 49 28.78	+13.669	+ 1
788	ν Cygni	4.04	A o	20 54 53.881	+2.2365	+ 9	+40 55 52.94	+13.836	− 17
789	[11 Aquarii]	6.26	G o	20 57 21.157	+3.1585	+ 23	− 4 58 1.33	+13.876	− 133
787	[α Octantis]	5.24	F 2	20 57 23.746	+7.2979	− 10	−77 15 31.07	+13.656	− 355
790	ζ Microscopii	5.35	F o	20 59 4.391	+3.8342	− 36	−38 52 16.26	+13.994	− 122
792	[ξ Cygni]	3.92	K 5	21 2 42.685	+2.1825	+ 12	+43 41 0.87	+14.337	− 3
791	[A Capricorni]	4.60	M a	21 3 33.762	+3.5088	− 30	−25 15 3.62	+14.345	− 47
793	61 Cygni pr.	5.57	K 5	21 4 9.624	+2.6872	+3506	+38 26 54.66	+17.687	+3259
794	ν Aquarii	4.52	K o	21 6 16.411	+3.2682	+ 62	−11 37 11.18	+14.546	− 9
795	Br 2777	5.90	B 9	21 6 45.330	−1.1877	+ 74	+77 52 46.17	+14.621	+ 36
798	†[Grb 3415]	5.65	B 2	21 10 15.102	+1.5273	− 6	+59 44 6.52	+14.790	− 2
797	ζ Cygni	3.40	K o	21 10 20.332	+2.5531	− 1	+29 58 32.74	+14.739	− 59
796	[Indi 23 G.]	5.84	A 5	21 11 24.865	+4.2837	− 19	−53 31 2.66	+14.815	− 46
799	†[τ Cygni]	3.82	F o	21 12 21.291	+2.3947	+ 136	+37 47 3.21	+15.352	+ 436

Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		m		h m s	s		° ' "	"	
800	α Equulei	4.14	F 8 + A 3	21 12 46.504	+2.9990	+ 38	+ 4 59 40.46	+14.853	— 87
801	[4 Pisc. austr.]	4.79	A 0	21 14 14.616	+3.6384	+ 35	—32 25 43.22	+15.000	— 26
802	[ϑ¹ Microscop.]	4.92	A 2 p	21 16 52.023	+3.8407	+ 70	—41 4 6.15	+15.191	+ 14
803	α Cephei	2.60	A 5	21 17 7.489	+1.4321	+ 213	+62 19 35.82	+15.241	+ 50
804	ι Pegasi	4.24	K 0	21 19 15.882	+2.7744	+ 74	+19 32 33.01	+15.374	+ 61
805	γ Pavonis	4.30	F 8	21 21 25.414	+4.9690	+ 127	—65 38 38.03	+16.223	+ 788
806	ζ Capricorni	3.86	G 5 p	21 23 11.281	+3.4258	— 1	—22 40 36.17	+15.555	+ 23
807	[g Cygni]	5.34	K 0	21 27 11.820	+2.2141	+ 48	+46 16 14.99	+15.854	+ 103
809	β Cephei	3.32	B 1	21 27 52.876	+0.7768	+ 20	+70 17 33.58	+15.795	+ 7
808	β Aquarii	3.07	G 0	21 28 20.935	+3.1582	+ 11	— 5 50 25.85	+15.809	— 5
811	74 Cygni	5.09	A 5	21 34 30.126	+2.4045	— 3	+40 8 19.31	+16.150	+ 12
810	ν Octantis	3.74	K 0	21 34 46.043	+6.7042	+ 135	—77 39 46.61	+15.896	— 256
812	[γ Capricorni]	3.80	F 0 p	21 36 42.848	+3.3243	+ 131	—16 56 19.52	+16.236	— 16
813	[13 H. Cephei]	5.64	O e 5	21 37 4.063	+1.8623	+ 7	+57 12 45.59	+16.272	+ 2
817	[11 Cephei]	4.85	K 0	21 41 2.112	+0.8812	+ 234	+71 1 48.96	+16.569	+ 98
815	ε Pegasi	2.54	K 0	21 41 11.383	+2.9463	+ 18	+ 9 35 39.80	+16.478	0
814	[ι Pisc. austr.]	4.35	A 0	21 41 19.077	+3.5743	+ 18	—33 18 18.26	+16.395	— 89
816	†[ϰ Pegasi]	4.27	F 5	21 41 52.885	+2.7164	+ 25	+25 21 49.66	+16.522	+ 10
818	[λ Capricorni]	5.43	A 0	21 43 15.229	+3.2298	+ 20	—11 38 53.34	+16.576	— 4
819	δ Capricorni	2.98	A 5	21 43 40.582	+3.3114	+ 179	—16 24 18.18	+16.308	— 293
821	π² Cygni	4.26	B 3	21 44 32.270	+2.2165	+ 8	+49 1 35.66	+16.639	— 4
820	[o Indi]	5.50	K 2	21 45 39.391	+5.0860	— 86	—69 54 53.59	+16.677	— 21
822	γ Gruis	3.16	B 8	21 50 14.439	+3.6338	+ 77	—37 39 9.97	+16.898	— 18
823	16 Pegasi	5.05	B 3	21 50 17.110	+2.7296	+ 4	+25 38 14.53	+16.919	+ 1
824	[δ Indi]	4.56	F 0	21 53 46.715	+4.0866	+ 43	—55 17 2.48	+17.051	— 29
826	[20 Pegasi]	5.66	F 2	21 58 6.993	+2.9223	+ 36	+12 49 36.76	+17.221	— 54
825	[ε Indi]	4.74	K 5	21 58 42.529	+4.5942	+4808	—57 2 16.85	+14.729	—2572
827	α Aquarii	3.19	G 0	22 2 39.083	+3.0811	+ 10	— 0 37 1.17	+17.466	— 7
828	ι Aquarii	4.35	B 8	22 3 8.691	+3.2400	+ 24	—14 9 59.02	+17.443	— 51
830	20 Cephei	5.39	K 5	22 3 9.179	+1.8231	+ 22	+62 29 15.29	+17.555	+ 60
831	[ι Pegasi]	3.96	F 5	22 4 10.171	+2.7926	+ 219	+25 2 46.98	+17.560	+ 22
829	α Gruis	2.16	B 5	22 4 23.854	+3.7837	+ 119	—47 15 27.58	+17.376	— 171
832	[μ Pisc. austr.]	4.62	A 2	22 4 49.671	+3.4997	+ 41	—33 17 13.76	+17.525	— 41
833	[27 Pegasi]	5.65	K 0	22 6 31.355	+2.6585	— 42	+32 52 25.22	+17.571	— 65
834	ϑ Pegasi	3.70	A 2	22 7 7.367	+3.0262	+ 184	+ 5 53 49.18	+17.692	+ 31
835	π Pegasi	4.38	F 5	22 7 16.560	+2.6642	— 9	+32 52 41.61	+17.649	— 19
837	24 Cephei	4.99	G 5	22 8 38.325	+1.1533	+ 54	+72 2 25.70	+17.731	+ 8
836	ζ Cephei	3.62	K 0	22 8 44.081	+2.0804	+ 14	+57 54 0.07	+17.733	+ 6
838	[λ Pisc. austr.]	5.40	B 9	22 10 51.577	+3.4013	+ 16	—28 4 12.44	+17.813	— 1
839	[ε Octantis]	5.11	M b	22 13 17.590	+6.7683	+ 137	—80 44 41.26	+17.870	— 40

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		m		h m s	s		° ' "	"	
840	ϑ Aquarii	4.32	K o	22 13 36.976	+3.1657	+ 76	− 8 5 15.96	+17.904	− 19
841	α Tucanae	2.91	K 2	22 14 20.391	+4.1167	− 98	−60 33 52.83	+17.902	− 49
842	γ Aquarii	3.97	A o	22 18 30.364	+3.0983	+ 83	− 1 41 43.77	+18.117	+ 7
843	[31 Pegasi]	4.93	B 3 p	22 18 30.853	+2.9523	− 1	+11 53 49.79	+18.119	+ 9
844	3 Lacertae	4.58	K o	22 21 9.445	+2.3586	− 15	+51 55 22.11	+18.018	−191
845	[ν Gruis]	5.48	K o	22 25 5.034	+3.5178	+ 24	−39 26 28.24	+18.187	−162
846	[δ¹ Gruis]	4.02	G 5	22 25 37.849	+3.5877	+ 17	−43 48 28.91	+18.360	− 8
847	*[δ Cephei]	var.	verän.	22 26 54.107	+2.2264	+ 17	+58 6 8.90	+18.415	+ 2
848	7 Lacertae	3.85	A o	22 28 46.470	+2.4712	+ 147	+49 58 5.98	+18.493	+ 17
849	[υ Aquarii]	5.29	F 5	22 31 21.623	+3.2822	+ 155	−21 1 16.87	+18.419	−144
850	η Aquarii	4.13	B 8	22 32 13.337	+3.0827	+ 59	− 0 25 57.23	+18.536	− 55
851	[31 Cephei]	5.22	F o	22 34 15.699	+1.4812	+ 384	+73 19 34.35	+18.681	+ 23
853	[30 Cephei]	5.21	A 2	22 36 28.976	+2.1276	+ 1	+63 16 1.11	+18.706	− 22
852	10 Lacertae	4.91	Oe 5	22 36 31.250	+2.6916	+ 4	+38 43 56.06	+18.722	− 6
854	[ε Pisc. austr.]	4.22	B 8	22 37 17.105	+3.3184	+ 12	−27 21 44.44	+18.755	+ 2
855	ζ Pegasi	3.61	B 8	22 38 25.133	+2.9920	+ 53	+10 30 44.34	+18.774	− 13
856	β Gruis	2.24	M b	22 39 1.917	+3.5841	+ 117	−47 12 16.34	+18.781	− 25
857	η Pegasi	3.10	G o	22 40 8.396	+2.8119	+ 12	+29 54 5.61	+18.806	− 33
858	[13 Lacertae]	5.24	K o	22 41 22.008	+2.6748	− 6	+41 29 55.02	+18.880	+ 5
859	λ Pegasi	4.14	K o	22 43 35.435	+2.8893	+ 41	+23 14 38.76	+18.930	− 10
860	ε Gruis	3.69	A 2	22 44 52.725	+3.6262	+ 96	−51 38 17.94	+18.903	− 73
861	[τ Aquarii]	4.21	K 5	22 46 21.841	+3.1764	− 12	−13 54 54.29	+18.985	− 33
862	[μ Pegasi]	3.67	K o	22 47 3.405	+2.8954	+ 109	+24 16 44.38	+18.996	− 41
863	ι Cephei	3.68	K o	22 47 30.153	+2.1332	− 115	+65 52 45.22	+18.926	−123
864	λ Aquarii	3.84	M a	22 49 25.990	+3.1297	+ 5	− 7 54 17.00	+19.139	+ 38
865	ρ Indi	6.14	M a	22 50 26.529	+4.1845	− 101	−70 24 1.09	+19.190	+ 62
866	δ Aquarii	3.51	A 2	22 51 24.884	+3.1838	− 33	−16 8 44.45	+19.133	− 19
867	α Pisc. austr.	1.29	A 3	22 54 17.005	+3.3155	+ 247	−29 56 45.45	+19.066	−159
868	[ζ Gruis]	4.18	G 5	22 57 17.319	+3.5456	− 80	−53 4 54.50	+19.282	− 16
869	o Androm.	3.63	B 5 + A 2 p	22 59 6.602	+2.7596	+ 25	+41 59 51.39	+19.328	− 13
870	β Pegasi	2.61	M a	23 0 48.848	+2.9080	+ 145	+27 45 5.34	+19.516	+138
871	α Pegasi	2.57	A o	23 1 43.224	+2.9879	+ 41	+14 52 35.82	+19.358	− 41
872	†ϑ Gruis	4.35	F 5	23 3 26.938	+3.3814	− 52	−43 51 2.11	+19.399	− 38
874	†π Cephei	4.56	G 5	23 5 57.094	+1.9060	+ 29	+75 3 27.22	+19.463	− 25
873	c² Aquarii	3.80	K o	23 6 11.788	+3.1987	+ 32	−21 30 14.01	+19.530	+ 36
875	Br 3077	5.65	K 2	23 10 20.241	+2.8870	+2536	+56 49 52.46	+19.871	+296
876	[Tucanae 25 G.]	5.69	G o	23 13 18.430	+3.6118	+ 231	−62 20 4.09	+19.576	− 53
877	γ Tucanae	4.10	F 2	23 13 52.790	+3.5042	− 59	−58 34 13.87	+19.721	+ 82
878	[γ Piscium]	3.85	K o	23 14 0.142	+3.1096	+ 503	+ 2 56 54.94	+19.659	+ 18
879	γ Sculptoris	4.51	K o	23 15 32.056	+3.2405	+ 10	−32 51 52.87	+19.600	− 68

Nr. 847. Größe: Max. 3.7, Min. 4.6; Spektrum wechselt von F 5 bis G o.

Mittlere Sternörter 1939.0

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0.s0001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0."001
		m		h m s	s		° ′ ″	″	
880	τ Pegasi	4.65	A 5	23 17 36.885	+2.9688	+ 21	+23 24 21.72	+19.688	− 13
882	4 Cassiopeiae	5.20	K 5	23 22 7.121	+2.6622	+ 17	+61 56 51.59	+19.760	− 10
881	[υ Pegasi]	4.57	G 0	23 22 19.909	+2.9938	+138	+23 4 4.67	+19.809	+ 35
883	[ο Gruis]	5.54	F 0	23 23 12.082	+3.3568	− 4	−53 3 34.85	+19.904	+119
884	κ Piscium	4.94	A 2 p	23 23 48.307	+3.0753	+ 56	+ 0 55 17.01	+19.701	− 93
885	70 Pegasi	4.67	K 0	23 26 4.058	+3.0335	+ 38	+12 25 25.35	+19.852	+ 28
886	[β Sculptoris]	4.46	B 9	23 29 42.280	+3.2180	+ 65	−38 9 21.72	+19.883	+ 14
887	†[72 Pegasi]	5.21	K 2	23 30 55.359	+2.9755	+ 40	+30 59 18.55	+19.870	− 12
888	[Aquarii 248 G.]	6.51	K 0	23 32 23.300	+3.0946	− 5	− 7 48 7.92	+19.922	+ 23
889	[Phoenicis 11 G.]	4.86	A 2	23 34 34.266	+3.2301	+ 47	−45 49 49.88	+19.883	− 37
890	[λ Androm.]	4.00	K 0	23 34 34.292	+2.9348	+156	+46 7 38.73	+19.498	−423
891	ι Androm.	4.28	B 8	23 35 8.303	+2.9411	+ 27	+42 55 48.37	+19.921	− 5
892	ι Piscium	4.28	F 8	23 36 48.689	+3.0853	+247	+ 5 17 43.38	+19.501	−440
893	γ Cephei	3.42	K 0	23 36 49.638	+2.4564	−185	+77 17 30.79	+20.098	+157
894	ω² Aquarii	4.62	A 0	23 39 33.620	+3.1111	+ 65	−14 52 56.41	+19.901	− 63
895	41 H. Cephei	5.02	A 0	23 44 58.800	+2.8644	+ 23	+67 28 4.13	+20.002	+ 1
896	Lac. δ Sculpt.	4.64	A 0	23 45 45.071	+3.1252	+ 71	−28 28 4.02	+19.900	−105
897	[Aquarii 268 G.]	6.08	K 0	23 47 5.872	+3.0953	+ 86	−10 18 52.82	+20.098	+ 86
898	φ Pegasi	5.23	M a	23 49 22.887	+3.0512	− 8	+18 46 52.84	+19.983	− 39
899	[ρ Cassiopeiae]	4.85	F 8 p	23 51 19.509	+2.9940	− 7	+57 9 36.04	+20.033	+ 4
900	[27 Piscium]	5.07	K 0	23 55 32.989	+3.0711	− 37	− 3 53 40.00	+19.971	− 68
901	[π Phoenicis]	5.14	K 0	23 55 46.404	+3.1088	+ 30	−53 5 12.91	+20.086	+ 46
902	ω Piscium	4.03	F 5	23 56 10.641	+3.0805	+100	+ 6 31 32.09	+19.931	−109
903	ε Tucanae	4.71	B 9	23 56 45.518	+3.1217	+ 64	−65 55 0.01	+20.009	− 33
904	[ϑ Octantis]	4.73	K 0	23 58 29.034	+3.0909	−218	−77 24 9.01	+19.873	−171

Von den Sternen, deren Namen eingeklammert sind, folgen keine Ephemeriden.
Ein † vor dem Namen eines Sternes deutet darauf hin, daß dieser Stern in Zukunft nicht mehr als Fundamentalstern gelten soll. Vgl. Astron. Nachr. Bd. 231, S. 309.

Nördliche Polsterne

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		m		h m s	s		° ′ ″	″	
Na	43 H. Cephei	4.52	K 0	1 0 1.61	+ 8.013	+ 77	+85 55 51.77	+19.358	− 2
Nb	α Ursae min.	2.12	F 8	1 41 57.83	+35.343	+159	+88 58 26.35	+18.092	0
Nc	*Grb 750	6.70	F 8	4 16 34.53	+18.007	+ 17	+85 23 28.42	+ 8.773	+ 32
Nd	51 H. Cephei	5.26	M a	7 12 38.94	+28.490	− 52	+87 8 45.91	− 6.282	− 34
Ne	1 H. Dracon.	4.58	K 2	9 28 33.14	+ 8.620	− 6	+81 35 54.83	−15.844	− 20
Nf	30 H. Camel.	5.34	F 2	10 23 49.13	+ 7.380	− 46	+82 52 13.78	−18.273	+ 31
Ng	ε Ursae min.	4.40	G 5	16 52 8.82	− 6.179	+ 7	+82 8 26.56	− 5.842	+ 6
Nh	δ Ursae min.	4.44	A 0	17 51 52.56	−19.471	+ 14	+86 36 43.90	− 0.653	+ 57
Ni	λ Ursae min.	6.55	M b	18 35 27.06	−76.100	−101	+89 2 36.29	+ 3.094	+ 5
Nk	76 Draconis	5.69	A 0	20 47 7.62	− 4.287	+ 16	+82 18 25.50	+13.382	+ 27

Nr. Nc. Größe aus Harvard 54 entnommen.

Südliche Polsterne

Nr.	Name	Größe	Spektrum	AR. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.001	Dekl. 1939.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		m		h m s	s		° ′ ″	″	
Sa	Octantis 4 G.	5.63	K 0	1 40 42.88	− 3.510	+ 18	−85 4 41.97	+18.173	+ 34
Sb	ξ Mensae	5.85	K 0	5 5 44.48	− 6.872	− 4	−82 33 18.27	+ 4.715	+ 14
Sc	ζ Octantis	5.38	F 0	9 5 55.84	− 8.511	− 94	−85 25 18.01	−14.485	+ 50
Sd	ι Octantis	5.38	K 0	12 48 21.15	+ 6.186	+ 43	−84 47 33.53	−19.574	+ 25
Se	Octantis 20 G.	6.52	A 2	14 56 8.20	+28.270	−185	−87 54 15.44	−14.481	− 71
Sf	Octantis 26 G.	6.13	A 0	16 37 44.27	+22.223	+ 5	−86 15 40.27	− 7.043	− 2
Sg	χ Octantis	5.22	K 0	18 19 16.70	+35.553	− 81	−87 39 30.17	+ 1.554	−130
Sh	σ Octantis	5.48	F 0	20 0 20.97	+83.059	+106	−89 10 14.73	+10.050	+ 2
Si	β Octantis	4.34	F 0	22 39 56.69	+ 6.183	− 26	−81 42 8.74	+18.836	+ 2
Sk	τ Octantis	5.56	K 0	23 19 41.92	+ 9.228	+ 20	−87 49 4.46	+19.750	+ 15

Scheinbare Sternörter 1939

Tag		1) α Andromedae AR.	Diff.	1) α Andromedae Dekl.	Diff.	2) β Cassiopeiae AR.	Diff.	2) β Cassiopeiae Dekl.	Diff.	3) ε Phoenicis AR.	Diff.	3) ε Phoenicis Dekl.	Diff.	7) γ Pegasi AR.	Diff.	7) γ Pegasi Dekl.	Diff.
1939		$0^h\ 5^m$		$+28°\ 45'$		$0^h\ 5^m$		$+58°\ 48'$		$0^h\ 6^m$		$-46°\ 4'$		$0^h\ 10^m$		$+14°\ 50'$	
Jan.	0	14.635	144	26.79	96	55.828	315	69.54	76	19.168	208	73.85	28	6.258	122	48.51	88
	10	14.491	139	25.83	121	55.513	304	68.78	128	18.960	193	73.57	75	6.136	118	47.63	99
	20	14.352	127	24.62	143	55.209	280	67.50	174	18.767	172	72.82	118	6.018	108	46.64	106
	30	14.225	108	23.19	159	54.929	244	65.76	215	18.595	145	71.64	159	5.910	93	45.58	109
Febr.	9	14.117	84	21.60	167	54.685	195	63.61	245	18.450	113	70.05	196	5.817	73	44.49	108
	19	14.033	54	19.93	168	54.490	136	61.16	267	18.337	76	68.09	228	5.744	46	43.41	100
März	1	13.979	18	18.25	162	54.354	68	58.49	277	18.261	34	65.81	255	5.698	15	42.41	87
	11	13.961	25	16.63	148	54.286	8	55.72	275	18.227	12	63.26	278	5.683	21	41.54	70
	21	13.986	69	15.15	126	54.294	87	52.97	263	18.239	61	60.48	293	5.704	60	40.84	46
	31	14.055	116	13.89	99	54.381	166	50.34	239	18.300	113	57.55	304	5.764	102	40.38	19
Apr.	10	14.171	162	12.90	66	54.547	244	47.95	207	18.413	164	54.51	309	5.866	145	40.19	11
	20	14.333	206	12.24	29	54.791	316	45.88	166	18.577	214	51.42	305	6.011	186	40.30	42
	30	14.539	247	11.95	10	55.107	378	44.22	120	18.791	262	48.37	297	6.197	223	40.72	74
Mai	10	14.786	281	12.05	49	55.485	431	43.02	70	19.053	305	45.40	281	6.420	255	41.46	104
	20	15.067	309	12.54	87	55.916	471	42.32	17	19.358	341	42.59	258	6.675	283	42.50	132
	30	15.376	327	13.41	124	56.387	497	42.15	36	19.699	368	40.01	230	6.958	302	43.82	158
Juni	9	15.703	338	14.65	156	56.884	510	42.51	88	20.067	387	37.71	196	7.260	313	45.40	179
	19	16.041	339	16.21	184	57.394	509	43.39	137	20.454	396	35.75	156	7.573	315	47.19	195
	29	16.380	331	18.05	209	57.903	494	44.76	182	20.850	393	34.19	113	7.888	310	49.14	205
Juli	9	16.711	315	20.14	226	58.397	468	46.58	222	21.243	380	33.06	67	8.198	297	51.19	211
	19	17.026	291	22.40	238	58.865	431	48.80	258	21.623	356	32.39	19	8.495	276	53.30	210
	29	17.317	261	24.78	245	59.296	384	51.38	287	21.979	323	32.20	29	8.771	249	55.40	206
Aug.	8	17.578	226	27.23	246	59.680	330	54.25	310	22.302	282	32.49	76	9.020	217	57.46	196
	18	17.804	188	29.69	242	60.010	272	57.35	325	22.584	233	33.25	119	9.237	182	59.42	183
	28	17.992	146	32.11	233	60.282	209	60.60	333	22.817	180	34.44	158	9.419	144	61.25	166
Sept.	7	18.138	105	34.44	220	60.491	144	63.93	336	22.997	123	36.02	191	9.563	105	62.91	146
	17	$_{23}$18.243	65	36.64	203	$_{23}$60.635	80	67.29	331	$_{23}$23.120	66	37.93	216	$_{24}$9.668	67	64.37	125
	26	18.308	27	38.67	182	60.715	18	70.60	320	23.186	10	40.09	232	9.735	32	65.62	103
Okt.	6	18.335	9	40.49	159	60.733	42	73.80	301	23.196	43	42.41	238	9.767	0	66.65	80
	16	18.326	41	42.08	134	60.691	97	76.81	276	23.153	90	44.79	236	9.767	30	67.45	57
	26	18.285	69	43.42	106	60.594	150	79.57	245	23.063	131	47.15	224	9.737	56	68.02	35
Nov.	5	18.216	92	44.48	77	60.444	196	82.02	207	22.932	165	49.39	201	9.681	76	68.37	13
	15	18.124	111	45.25	46	60.248	236	84.09	165	22.767	191	51.40	172	9.605	94	68.50	8
	25	18.013	127	45.71	15	60.012	271	85.74	117	22.576	207	53.12	135	9.511	107	68.42	28
Dez.	5	17.886	139	45.86	18	59.741	296	86.91	65	22.369	217	54.47	94	9.404	117	68.14	47
	15	17.747	145	45.68	49	59.445	314	87.56	11	22.152	220	55.41	48	9.287	123	67.67	65
	25	17.602	148	45.19	79	59.131	320	87.67	44	21.932	215	55.89	2	9.164	125	67.02	80
	35	17.454		44.40		58.811		87.23		21.717		55.91		9.039		66.22	
Mittl. Ort		13.793		13.31		54.586		48.02		19.130		63.19		5.502		39.84	
sec δ, tg δ		1.141		+0.549		1.931		+1.652		1.442		−1.039		1.035		+0.265	
a, *a′*		+3.1		+20.0		+3.1		+20.0		+3.0		+20.0		+3.1		+20.0	
b, *b′*		+0.04		−0.02		+0.11		−0.03		−0.07		−0.03		+0.02		−0.04	

Tag	9) ι Ceti AR.		9) ι Ceti Dekl.		10) ζ Tucanae AR.		10) ζ Tucanae Dekl.		11) β Hydri AR.		11) β Hydri Dekl.		12) α Phoenicis AR.		12) α Phoenicis Dekl.	
1939	0h 16m		−9° 9′		0h 16m		−65° 13′		0h 22m		−77° 35′		0h 23m		−42° 37′	
Jan. 0	19.776	118	43.27	61	53.68	42	74.80	72	32.81	91	67.90	95	16.519	197	85.25	1
10	19.658	115	43.88	45	53.26	39	74.08	128	31.90	85	66.95	154	16.322	188	85.24	47
20	19.543	105	44.33	29	52.87	35	72.80	181	31.05	78	65.41	208	16.134	173	84.77	91
30	19.438	90	44.62	11	52.52	30	70.99	227	30.27	68	63.33	257	15.961	151	83.86	132
Febr. 9	19.348	73	44.73	9	52.22	24	68.72	268	29.59	56	60.76	297	15.810	124	82.54	169
19	19.275	48	44.64	30	51.98	19	66.04	303	29.03	43	57.79	329	15.686	91	80.85	204
März 1	19.227	20	44.34	53	51.79	11	63.01	329	28.60	29	54.50	355	15.595	53	78.81	233
11	19.207	14	43.81	76	51.68	3	59.72	348	28.31	15	50.95	371	15.542	10	76.48	259
21	19.221	51	43.05	100	51.65	4	56.24	360	28.16	1	47.24	379	15.532	36	73.89	278
31	19.272	90	42.05	123	51.69	13	52.64	364	28.17	17	43.45	379	15.568	85	71.11	292
Apr. 10	19.362	131	40.82	146	51.82	20	49.00	360	28.34	33	39.66	370	15.653	136	68.19	300
20	19.493	171	39.36	165	52.02	29	45.40	348	28.67	47	35.96	354	15.789	185	65.19	302
30	19.664	208	37.71	183	52.31	37	41.92	329	29.14	61	32.42	330	15.974	233	62.17	297
Mai 10	19.872	240	35.88	196	52.68	43	38.63	303	29.75	73	29.12	298	16.207	276	59.20	286
20	20.112	269	33.92	205	53.11	49	35.60	270	30.48	85	26.14	260	16.483	313	56.34	268
30	20.381	290	31.87	208	53.60	53	32.90	230	31.33	94	23.54	216	16.796	343	53.66	243
Juni 9	20.671	304	29.79	207	54.13	57	30.60	184	32.27	101	21.38	167	17.139	364	51.23	212
19	20.975	309	27.72	200	54.70	59	28.76	136	33.28	105	19.71	113	17.503	375	49.11	177
29	21.284	306	25.72	187	55.29	60	27.40	82	34.33	107	18.58	58	17.878	377	47.34	136
Juli 9	21.590	295	23.85	170	55.89	58	26.58	27	35.40	105	18.00	0	18.255	368	45.98	91
19	21.885	278	22.15	148	56.47	55	26.31	28	36.45	100	18.00	58	18.623	348	45.07	45
29	22.163	252	20.67	122	57.02	50	26.59	83	37.45	93	18.58	114	18.971	321	44.62	2
Aug. 8	22.415	221	19.45	96	57.52	45	27.42	134	38.38	83	19.72	166	19.292	284	44.64	50
18	22.636	187	18.49	66	57.97	37	28.76	182	39.21	69	21.38	212	19.576	240	45.14	95
28	22.823	149	17.83	36	58.34	29	30.58	222	39.90	54	23.50	253	19.816	192	46.09	136
Sept. 7	22.972	110	17.47	8	58.63	20	32.80	254	40.44	37	26.03	283	20.008	140	47.45	172
17	23.082	72	17.39	19	58.83	11	35.34	278	40.81	18	28.86	303	20.148	87	49.17	200
26*)	[26] 23.154	36	17.58	43	[26] 58.94	1	38.12	290	[27] 40.99	0	31.89	313	[27] 20.235	34	51.17	220
Okt. 6	23.190	2	18.01	62	58.95	8	41.02	291	40.99	18	35.02	311	20.269	15	53.37	232
16	23.192	29	18.63	78	58.87	17	43.93	280	40.81	36	38.13	295	20.254	61	55.69	234
26	23.163	54	19.41	90	58.70	25	46.73	259	40.45	53	41.08	269	20.193	101	58.03	226
Nov. 5	23.109	76	20.31	95	58.45	31	49.32	226	39.92	66	43.77	231	20.092	135	60.29	209
15	23.033	93	21.26	98	58.14	36	51.58	185	39.26	78	46.08	183	19.957	161	62.38	184
25	22.940	106	22.24	95	57.78	40	53.43	136	38.48	86	47.91	130	19.796	182	64.22	151
Dez. 5	22.834	115	23.19	89	57.38	42	54.79	81	37.62	91	49.21	70	19.614	195	65.73	114
15	22.719	121	24.08	81	56.96	43	55.60	24	36.71	94	49.91	7	19.419	201	66.87	71
25	22.598	121	24.89	70	56.53	42	55.84	35	35.77	92	49.98	55	19.218	201	67.58	27
35	22.477		25.59		56.11		55.49		34.85		49.43		19.017		67.85	
Mittl. Ort	19.188		43.26		54.22		60.28		34.65		52.03		16.295		74.78	
sec δ, tg δ	1.013		−0.161		2.387		−2.168		4.656		−4.547		1.359		−0.921	
a, a'	+3.1		+20.0		+2.9		+20.0		+2.5		+19.9		+2.9		+19.9	
b, b'	−0.01		−0.07		−0.14		−0.07		−0.30		−0.10		−0.06		−0.10	

*) Bei Stern 11) und 12) lies Sept. 27.

Scheinbare Sternörter 1939

Tag		13) 12 Ceti				17) ζ Cassiopeiae				18) π Andromedae				20) δ Andromedae			
		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939		0h 26m		−4° 17′		0h 33m		+53° 33′		0h 33m		+33° 22′		0h 36m		+30° 31′	
Jan.	0	s 56.238	119	″ 37.83	68	s 35.117	264	″ 60.84	51	s 38.130	159	″ 75.82	74	s 4.711	151	″ 52.20	74
	10	56.119	116	38.51	59	34.853	264	60.33	99	37.971	160	75.08	104	4.560	152	51.46	101
	20	56.003	109	39.10	47	34.589	252	59.34	144	37.811	154	74.04	130	4.408	147	50.45	125
	30	55.894	97	39.57	32	34.337	229	57.90	183	37.657	139	72.74	153	4.261	134	49.20	145
Febr.	9	55.797	80	39.89	16	34.108	195	56.07	215	37.518	118	71.21	167	4.127	113	47.75	158
	19	55.717	57	40.05	3	33.913	150	53.92	238	37.400	88	69.54	176	4.014	86	46.17	164
März	1	55.660	30	40.02	24	33.763	95	51.54	251	37.312	53	67.78	176	3.928	52	44.53	162
	11	55.630	4	39.78	46	33.668	32	49.03	252	37.259	10	66.02	168	3.876	11	42.91	153
	21	55.634	41	39.32	70	33.636	36	46.51	244	37.249	38	64.34	152	3.865	35	41.38	137
	31	55.675	80	38.62	94	33.672	107	44.07	226	37.287	87	62.82	129	3.900	83	40.01	114
Apr.	10	55.755	121	37.68	118	33.779	177	41.81	199	37.374	138	61.53	100	3.983	133	38.87	86
	20	55.876	162	36.50	141	33.956	245	39.82	163	37.512	187	60.53	66	4.116	180	38.01	52
	30	56.038	199	35.09	161	34.201	306	38.19	122	37.699	233	59.87	28	4.296	225	37.49	15
Mai	10	56.237	234	33.48	178	34.507	358	36.97	76	37.932	273	59.59	11	4.521	265	37.34	22
	20	56.471	263	31.70	191	34.865	401	36.21	28	38.205	306	59.70	51	4.786	297	37.56	60
	30	56.734	285	29.79	199	35.266	433	35.93	21	38.511	331	60.21	89	5.083	322	38.16	96
Juni	9	57.019	300	27.80	203	35.699	453	36.14	70	38.842	346	61.10	124	5.405	338	39.12	130
	19	57.319	307	25.77	201	36.152	459	36.84	117	39.188	353	62.34	158	5.743	345	40.42	161
	29	57.626	306	23.76	193	36.611	455	38.01	159	39.541	350	63.92	185	6.088	343	42.03	186
Juli	9	57.932	296	21.83	181	37.066	438	39.60	198	39.891	338	65.77	209	6.431	331	43.89	207
	19	58.228	279	20.02	163	37.504	411	41.58	232	40.229	319	67.86	228	6.762	313	45.96	223
	29	58.507	255	18.39	142	37.915	377	43.90	261	40.548	291	70.14	239	7.075	287	48.19	233
Aug.	8	58.762	227	16.97	118	38.292	334	46.51	283	40.839	259	72.53	246	7.362	256	50.52	237
	18	58.989	194	15.79	92	38.626	286	49.34	298	41.098	223	74.99	248	7.618	221	52.89	237
	28	59.183	157	14.87	64	38.912	234	52.32	309	41.321	183	77.47	244	7.839	182	55.26	232
Sept.	7	59.340	120	14.23	36	39.146	179	55.41	312	41.504	142	79.91	237	8.021	142	57.58	222
	17	59.460	83	13.87	10	39.325	125	58.53	310	41.646	101	82.28	223	8.163	103	59.80	209
	27	59.543	47	13.77	14	39.450	71	61.63	300	41.747	62	84.51	207	8.266	64	61.89	191
Okt.	6	59.590	14	13.91	35	39.521	17	64.63	286	41.809	24	86.58	187	8.330	28	63.80	171
	16	59.604	16	14.26	53	39.538	32	67.49	264	41.833	11	88.45	164	8.358	6	65.51	149
	26	59.588	43	14.79	67	39.506	80	70.13	238	41.822	42	90.09	139	8.352	37	67.00	124
Nov.	5	59.545	65	15.46	77	39.426	123	72.51	205	41.780	71	91.48	111	8.315	65	68.24	96
	15	59.480	83	16.23	83	39.303	162	74.56	168	41.709	96	92.59	80	8.250	90	69.20	68
	25	59.397	98	17.06	85	39.141	197	76.24	125	41.613	118	93.39	47	8.160	110	69.88	38
Dez.	5	59.299	109	17.91	84	38.944	227	77.49	79	41.495	136	93.86	14	8.050	128	70.26	6
	15	59.190	116	18.75	81	38.717	249	78.28	30	41.359	151	94.00	21	7.922	142	70.32	26
	25	59.074	119	19.56	75	38.468	264	78.58	20	41.208	159	93.79	54	7.780	151	70.06	56
	35	58.955		20.31		38.204		78.38		41.049		93.25		7.629		69.50	
Mittl. Ort		55.544		39.17		33.652		41.22		37.020		61.71		3.618		39.08	
sec δ, tg δ		1.003		−0.075		1.684		+1.354		1.198		+0.659		1.161		+0.590	
a, *a′*		+3.1		+19.9		+3.3		+19.8		+3.2		+19.8		+3.2		+19.8	
b, *b′*		0.00		−0.12		+0.09		−0.15		+0.04		−0.15		+0.04		−0.16	

Obere Kulmination Greenwich

Tag	21) α Cassiopeiae AR.		Dekl.		22) β Ceti AR.		Dekl.	
1939	$0^h\ 37^m$		$+56°\ 12'$		$0^h\ 40^m$		$-18°\ 18'$	
	s		"		s		"	
Jan. 0	3.484	288	31.24	43	32.332	132	80.13	56
10	3.196	289	30.81	93	32.200	132	80.69	31
20	2.907	278	29.88	140	32.068	125	81.00	5
30	2.629	253	28.48	182	31.943	114	81.05	22
Febr. 9	2.376	217	26.66	216	31.829	97	80.83	49
19	2.159	169	24.50	241	31.732	75	80.34	76
März 1	1.990	110	22.09	256	31.657	47	79.58	103
11	1.880	43	19.53	261	31.610	14	78.55	128
21	1.837	30	16.92	254	31.596	23	77.27	152
31	1.867	105	14.38	237	31.619	64	75.75	175
Apr. 10	1.972	181	12.01	211	31.683	107	74.00	195
20	2.153	252	9.90	176	31.790	149	72.05	211
30	2.405	318	8.14	135	31.939	189	69.94	223
Mai 10	2.723	375	6.79	90	32.128	226	67.71	231
20	3.098	421	5.89	42	32.354	259	65.40	233
30	3.519	455	5.47	9	32.613	285	63.07	229
Juni 9	3.974	476	5.56	58	32.898	303	60.78	221
19	4.450	485	6.14	106	33.201	313	58.57	205
29	4.935	480	7.20	151	33.514	316	56.52	185
Juli 9	5.415	464	8.71	192	33.830	309	54.67	160
19	5.879	437	10.63	227	34.139	294	53.07	130
29	6.316	401	12.90	258	34.433	273	51.77	97
Aug. 8	6.717	356	15.48	282	34.706	245	50.80	63
18	7.073	306	18.30	301	34.951	212	50.17	27
28	7.379	252	21.31	313	35.163	176	49.90	8
Sept. 7	7.631	195	24.44	318	35.339	137	49.98	42
17	7.826	137	27.62	318	35.476	97	50.40	72
27	7.963	79	30.80	310	[2] 35.573	59	51.12	97
Okt. 6	[1] 8.042	23	33.90	296	35.632	23	52.09	118
16	8.065	31	36.86	277	35.655	10	53.27	132
26	8.034	82	39.63	251	35.645	40	54.59	140
Nov. 5	7.952	130	42.14	218	35.605	66	55.99	141
15	7.822	174	44.32	181	35.539	87	57.40	137
25	7.648	212	46.13	138	35.452	105	58.77	127
Dez. 5	7.436	245	47.51	91	35.347	118	60.04	112
15	7.191	270	48.42	41	35.229	127	61.16	93
25	6.921	287	48.83	11	35.102	133	62.09	71
35	6.634		48.72		34.969		62.80	
Mittl. Ort	1.905		11.15		31.691		76.19	
sec δ, tg δ	1.798		+1.494		1.053		−0.331	
a, a'	+3.4		+19.8		+3.0		+19.7	
b, b'	+0.10		− 0.16		−0.02		− 0.18	

Tag	25) ο Cassiopeiae AR.		Dekl.		24) 21 Cassiopeiae AR.		Dekl.	
1939	$0^h\ 41^m$		$+47°\ 56'$		$0^h\ 41^m$		$+74°\ 39'$	
	s		"		s		"	
Jan. 0	20.379	222	80.80	50	37.71	71	40.93	1
10	20.157	225	80.30	95	37.00	72	40.92	62
20	19.932	217	79.35	135	36.28	69	40.30	121
30	19.715	200	78.00	171	35.59	63	39.09	175
Febr. 9	19.515	173	76.29	198	34.96	54	37.34	222
19	19.342	135	74.31	219	34.42	44	35.12	260
März 1	19.207	88	72.12	230	33.98	30	32.52	286
11	19.119	34	69.82	230	33.68	16	29.66	302
21	19.085	26	67.52	222	33.52	1	26.64	304
31	19.111	89	65.30	203	33.51	15	23.60	294
Apr. 10	19.200	152	63.27	176	33.66	31	20.66	274
20	19.352	213	61.51	142	33.97	46	17.92	244
30	19.565	269	60.09	103	34.43	58	15.48	205
Mai 10	19.834	319	59.06	60	35.01	70	13.43	159
20	20.153	359	58.46	14	35.71	79	11.84	108
30	20.512	390	58.32	32	36.50	85	10.76	55
Juni 9	20.902	410	58.64	78	37.35	90	10.21	1
19	21.312	418	59.42	120	38.25	91	10.22	55
29	21.730	416	60.62	160	39.16	91	10.77	108
Juli 9	22.146	403	62.22	195	40.07	88	11.85	159
19	22.549	380	64.17	226	40.95	83	13.44	205
29	22.929	351	66.43	250	41.78	76	15.49	246
Aug. 8	23.280	313	68.93	270	42.54	68	17.95	282
18	23.593	270	71.63	282	43.22	59	20.77	312
28	23.863	225	74.45	290	43.81	49	23.89	334
Sept. 7	24.088	177	77.35	291	44.30	37	27.23	351
17	24.265	128	80.26	287	44.67	26	30.74	361
27	[2] 24.393	80	83.13	277	[2] 44.93	13	34.35	361
Okt. 6	24.473	33	85.90	261	45.06	1	37.96	356
16	24.506	11	88.51	240	45.07	10	41.52	341
26	24.495	53	90.91	215	44.97	22	44.93	320
Nov. 5	24.442	92	93.06	185	44.75	34	48.13	289
15	24.350	127	94.91	149	44.41	44	51.02	252
25	24.223	158	96.40	110	43.97	53	53.54	206
Dez. 5	24.065	185	97.50	67	43.44	61	55.60	154
15	23.880	206	98.17	23	42.83	67	57.14	98
25	23.674	221	98.40	23	42.16	71	58.12	37
35	23.453		98.17		41.45		58.49	
Mittl. Ort	18.962		62.82		34.87		17.89	
sec δ, tg δ	1.493		+1.109		3.779		+3.644	
a, a'	+3.3		+19.7		+4.0		+19.7	
b, b'	+0.07		− 0.18		+0.24		− 0.18	

Tag		27) ζ Andromedae				32) γ Cassiopeiae				33) μ Andromedae				35) α Sculptoris			
		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939		0h 44m		+23° 56′		0h 53m		+60° 23′		0h 53m		+38° 10′		0h 55m		−29° 40′	
		s		″		s		″		s		″		s		″	
Jan.	0	7.097	138	18.99	72	2.52	33	32.91	16	22.925	174	22.87	53	40.620	159	81.24	50
	10	6.959	141	18.27	94	2.19	34	32.75	70	22.751	179	22.34	87	40.461	159	81.74	14
	20	6.818	137	17.33	111	1.85	34	32.05	120	22.572	177	21.47	120	40.302	154	81.88	22
	30	6.681	126	16.22	123	1.51	31	30.85	166	22.395	165	20.27	147	40.148	143	81.66	59
Febr.	9	6.555	109	14.99	132	1.20	27	29.19	206	22.230	146	18.80	168	40.005	127	81.07	94
	19	6.446	85	13.67	134	0.93	22	27.13	237	22.084	118	17.12	183	39.878	103	80.13	128
März	1	6.361	54	12.33	128	0.71	16	24.76	258	21.966	80	15.29	188	39.775	74	78.85	159
	11	6.307	17	11.05	118	0.55	8	22.18	267	21.886	36	13.41	186	39.701	40	77.26	187
	21	6.290	26	9.87	101	0.47	0	19.51	267	21.850	13	11.55	176	39.661	0	75.39	212
	31	6.316	71	8.86	78	0.47	8	16.84	255	21.863	67	9.79	157	39.661	43	73.27	234
Apr.	10	6.387	117	8.08	50	0.55	17	14.29	233	21.930	122	8.22	131	39.704	89	70.93	251
	20	6.504	164	7.58	19	0.72	25	11.96	203	22.052	175	6.91	99	39.793	135	68.42	263
	30	6.668	207	7.39	15	0.97	33	9.93	164	22.227	226	5.92	64	39.928	179	65.79	269
Mai	10	6.875	245	7.54	48	1.30	39	8.29	121	22.453	271	5.28	25	40.107	221	63.10	271
	20	7.120	278	8.02	82	1.69	45	7.08	73	22.724	309	5.03	16	40.328	258	60.39	265
	30	7.398	304	8.84	113	2.14	49	6.35	23	23.033	338	5.19	56	40.586	288	57.74	254
Juni	9	7.702	320	9.97	142	2.63	52	6.12	27	23.371	359	5.75	95	40.874	312	55.20	235
	19	8.022	329	11.39	167	3.15	53	6.39	76	23.730	369	6.70	131	41.186	326	52.85	211
	29	8.351	329	13.06	186	3.68	54	7.15	123	24.099	370	8.01	164	41.512	332	50.74	182
Juli	9	8.680	320	14.92	202	4.22	52	8.38	168	24.469	361	9.65	191	41.844	330	48.92	147
	19	9.000	303	16.94	212	4.74	50	10.06	207	24.830	344	11.56	215	42.174	317	47.45	108
	29	9.303	280	19.06	216	5.24	46	12.13	242	25.174	320	13.71	232	42.491	298	46.37	67
Aug.	8	9.583	251	21.22	216	5.70	41	14.55	271	25.494	289	16.03	244	42.789	271	45.70	24
	18	9.834	218	23.38	211	6.11	36	17.26	294	25.783	253	18.47	252	43.060	238	45.46	19
	28	10.052	183	25.49	201	6.47	31	20.20	310	26.036	214	20.99	253	43.298	200	45.65	60
Sept.	7	10.235	145	27.50	189	6.78	25	23.30	321	26.250	173	23.52	250	43.498	159	46.25	99
	17	10.380	107	29.39	172	7.03	18	26.51	325	26.423	132	26.02	241	43.657	117	47.24	132
	27	10.487	71	31.11	154	7.21	12	29.76	322	26.555	90	28.43	230	43.774	75	48.56	159
Okt.	6	[3] 10.558	37	32.65	134	[5] 7.33	6	32.98	313	[5] 26.645	50	30.73	213	[6] 43.849	33	50.15	180
	16	10.595	4	33.99	111	7.39	1	36.11	297	26.695	13	32.86	192	43.882	5	51.95	192
	26	10.599	25	35.10	88	7.38	7	39.08	274	26.708	22	34.78	168	43.877	40	53.87	196
Nov.	5	10.574	52	35.98	65	7.31	12	41.82	245	26.686	56	36.46	142	43.837	71	55.83	192
	15	10.522	75	36.63	40	7.19	18	44.27	210	26.630	86	37.88	112	43.766	97	57.75	180
	25	10.447	96	37.03	14	7.01	23	46.37	168	26.544	113	39.00	78	43.669	119	59.55	161
Dez.	5	10.351	113	37.17	11	6.78	27	48.05	121	26.431	137	39.78	43	43.550	137	61.16	136
	15	10.238	127	37.06	35	6.51	30	49.26	71	26.294	156	40.21	7	43.413	149	62.52	106
	25	10.111	136	36.71	59	6.21	33	49.97	17	26.138	171	40.28	31	43.264	157	63.58	73
	35	9.975		36.12		5.88		50.14		25.967		39.97		43.107		64.31	
Mittl. Ort		6.024		8.31		0.58		12.55		21.585		8.04		40.005		73.22	
sec δ, tg δ		1.094		+0.444		2.024		+1.759		1.272		+0.786		1.151		−0.570	
a, *a′*		+3.2		+19.7		+3.6		+19.5		+3.3		+19.5		+2.9		+19.5	
b, *b′*		+0.03		− 0.19		+0.11		− 0.23		+0.05		− 0.23		−0.04		− 0.24	

Tag	36) ε Piscium AR.		36) ε Piscium Dekl.		38) β Phoenicis AR.		38) β Phoenicis Dekl.	
1939	$0^h\ 59^m$		$+7°\ 33'$		$1^h\ 3^m$		$-47°\ 2'$	
	s		"		s		"	
Jan. 0	47.488	121	48.27	74	22.188	236	56.03	30
10	47.367	126	47.53	76	21.952	235	56.33	19
20	47.241	125	46.77	75	21.717	226	56.14	69
30	47.116	119	46.02	73	21.491	211	55.45	116
Febr. 9	46.997	105	45.29	66	21.280	189	54.29	161
19	46.892	86	44.63	56	21.091	158	52.68	200
März 1	46.806	61	44.07	42	20.933	122	50.68	235
11	46.745	28	43.65	24	20.811	78	48.33	266
21	46.717	9	43.41	4	20.733	30	45.67	290
31	46.726	50	43.37	19	20.703	23	42.77	308
Apr. 10	46.776	93	43.56	44	20.726	78	39.69	321
20	46.869	136	44.00	71	20.804	135	36.48	325
30	47.005	178	44.71	97	20.939	189	33.23	324
Mai 10	47.183	215	45.68	121	21.128	241	29.99	315
20	47.398	248	46.89	143	21.369	287	26.84	298
30	47.646	275	48.32	162	21.656	327	23.86	275
Juni 9	47.921	295	49.94	177	21.983	359	21.11	244
19	48.216	305	51.71	186	22.342	380	18.67	208
29	48.521	309	53.57	192	22.722	391	16.59	166
Juli 9	48.830	304	55.49	191	23.113	393	14.93	119
19	49.134	291	57.40	186	23.506	382	13.74	70
29	49.425	273	59.26	176	23.888	361	13.04	18
Aug. 8	49.698	248	61.02	162	24.249	332	12.86	35
18	49.946	219	62.64	144	24.581	293	13.21	85
28	50.165	186	64.08	123	24.874	248	14.06	132
Sept. 7	50.351	152	65.31	101	25.122	196	15.38	174
17	50.503	117	66.32	79	25.318	143	17.12	210
27	50.620	82	67.11	55	25.461	88	19.22	237
Okt. 7	50.702	50	67.66	34	8 25.549	33	21.59	256
16	7 50.752	19	68.00	13	25.582	19	24.15	263
26	50.771	8	68.13	5	25.563	68	26.78	260
Nov. 5	50.763	34	68.08	21	25.495	112	29.38	247
15	50.729	57	67.87	36	25.383	149	31.85	224
25	50.672	76	67.51	48	25.234	180	34.09	193
Dez. 5	50.596	94	67.03	58	25.054	205	36.02	154
15	50.502	108	66.45	66	24.849	222	37.56	109
25	50.394	118	65.79	71	24.627	233	38.65	62
35	50.276		65.08		24.394		39.27	
Mittl. Ort	46.488		43.85		21.746		43.23	
sec δ, tg δ	1.009		+0.133		1.468		−1.074	
a, *a'*	+3.1		+19.4		+2.7		+19.3	
b, *b'*	+0.01		− 0.26		−0.07		− 0.27	

Tag	42) β Andromedae AR.		42) β Andromedae Dekl.		45) υ Piscium AR.		45) υ Piscium Dekl.	
1939	$1^h\ 6^m$		$+35°\ 17'$		$1^h\ 16^m$		$+26°\ 56'$	
	s		"		s		"	
Jan. 0	19.975	163	64.98	46	7.793	141	48.65	52
10	19.812	171	64.52	79	7.652	150	48.13	75
20	19.641	171	63.73	108	7.502	153	47.38	95
30	19.470	164	62.65	132	7.349	148	46.43	113
Febr. 9	19.306	147	61.33	153	7.201	136	45.30	125
19	19.159	123	59.80	167	7.065	116	44.05	132
März 1	19.036	89	58.13	172	6.949	86	42.73	133
11	18.947	48	56.41	170	6.863	51	41.40	128
21	18.899	0	54.71	161	6.812	9	40.12	116
31	18.899	51	53.10	143	6.803	37	38.96	97
Apr. 10	18.950	103	51.67	119	6.840	87	37.99	74
20	19.053	157	50.48	90	6.927	135	37.25	46
30	19.210	207	49.58	56	7.062	182	36.79	15
Mai 10	19.417	252	49.02	20	7.244	227	36.64	17
20	19.669	291	48.82	19	7.471	264	36.81	50
30	19.960	322	49.01	56	7.735	294	37.31	82
Juni 9	20.282	344	49.57	92	8.029	317	38.13	113
19	20.626	357	50.49	126	8.346	331	39.26	139
29	20.983	360	51.75	156	8.677	336	40.65	163
Juli 9	21.343	355	53.31	182	9.013	333	42.28	181
19	21.698	341	55.13	203	9.346	322	44.09	195
29	22.039	319	57.16	219	9.668	303	46.04	204
Aug. 8	22.358	291	59.35	230	9.971	279	48.08	207
18	22.649	259	61.65	236	10.250	250	50.15	207
28	22.908	222	64.01	236	10.500	217	52.22	202
Sept. 7	23.130	184	66.37	233	10.717	182	54.24	193
17	23.314	145	68.70	224	10.899	145	56.17	181
27	23.459	105	70.94	212	11.044	110	57.98	165
Okt. 7	8 23.564	67	73.06	196	11 11.154	75	59.63	148
16	23.631	30	75.02	177	11.229	41	61.11	129
26	23.661	5	76.79	154	11.270	9	62.40	109
Nov. 5	23.656	37	78.33	130	11.279	21	63.49	86
15	23.619	67	79.63	103	11.258	49	64.35	63
25	23.552	95	80.66	72	11.209	74	64.98	39
Dez. 5	23.457	120	81.38	40	11.135	98	65.37	14
15	23.337	141	81.78	8	11.037	118	65.51	12
25	23.196	158	81.86	26	10.919	136	65.39	37
35	23.038		81.60		10.783		65.02	
Mittl. Ort	18.580		51.54		6.459		38.25	
sec δ, tg δ	1.225		+0.708		1.122		+0.508	
a, *a'*	+3.3		+19.2		+3.3		+18.9	
b, *b'*	+0.05		− 0.29		+0.03		− 0.33	

Tag	47) ϑ Ceti AR.		47) ϑ Ceti Dekl.		48) δ Cassiopeiae AR.		48) δ Cassiopeiae Dekl.	
1939	1h 20m		−8° 29′		1h 21m		+59° 55′	
Jan. 0	59.383	124	53.37	78	50.709	317	27.33	17
10	59.259	132	54.15	63	50.392	334	27.50	35
20	59.127	134	54.78	45	50.058	337	27.15	87
30	58.993	130	55.23	25	49.721	326	26.28	134
Febr. 9	58.863	120	55.48	4	49.395	298	24.94	177
19	58.743	104	55.52	18	49.097	256	23.17	212
März 1	58.639	81	55.34	41	48.841	200	21.05	238
11	58.558	51	54.93	65	48.641	131	18.67	254
21	58.507	16	54.28	89	48.510	54	16.13	259
31	58.491	24	53.39	113	48.456	29	13.54	255
Apr. 10	58.515	66	52.26	137	48.485	116	10.99	239
20	58.581	109	50.89	158	48.601	200	8.60	214
30	58.690	152	49.31	177	48.801	279	6.46	183
Mai 10	58.842	192	47.54	192	49.080	352	4.63	143
20	59.034	227	45.62	204	49.432	414	3.20	100
30	59.261	258	43.58	210	49.846	464	2.20	54
Juni 9	59.519	281	41.48	211	50.310	501	1.66	6
19	59.800	296	39.37	207	50.811	525	1.60	42
29	60.096	304	37.30	197	51.336	534	2.02	88
Juli 9	60.400	304	35.33	182	51.870	530	2.90	133
19	60.704	296	33.51	161	52.400	514	4.23	174
29	61.000	281	31.90	137	52.914	487	5.97	210
Aug. 8	61.281	259	30.53	109	53.401	451	8.07	241
18	61.540	233	29.44	79	53.852	406	10.48	267
28	61.773	203	28.65	47	54.258	356	13.15	287
Sept. 7	61.976	170	28.18	15	54.614	299	16.02	301
17	62.146	135	28.03	15	54.913	241	19.03	310
27	62.281	100	28.18	43	55.154	181	22.13	312
Okt. 7	12 62.381	67	28.61	67	12 55.335	118	25.25	308
16	62.448	35	29.28	86	55.453	57	28.33	297
26	62.483	4	30.14	101	55.510	4	31.30	279
Nov. 5	62.487	22	31.15	111	55.506	65	34.09	256
15	62.465	47	32.26	114	55.441	122	36.65	226
25	62.418	70	33.40	114	55.319	176	38.91	189
Dez. 5	62.348	90	34.54	109	55.143	227	40.80	147
15	62.258	106	35.63	100	54.916	270	42.27	100
25	62.152	119	36.63	88	54.646	306	43.27	49
35	62.033		37.51		54.340		43.76	
Mittl. Ort	58.412		51.40		48.412		8.42	
sec δ, tg δ	1.011		−0.150		1.995		+1.726	
a, *a*′	+3.0		+18.8		+3.9		+18.8	
b, *b*′	−0.01		−0.35		+0.11		−0.35	

Tag	50) η Piscium AR.		50) η Piscium Dekl.		51) 40 Cassiopeiae AR.		51) 40 Cassiopeiae Dekl.	
1939	1h 28m		+15° 1′		1h 33m		+72° 43′	
Jan. 0	14.160	123	60.64	62	39.64	59	68.94	63
10	14.037	134	60.02	72	39.05	62	69.57	4
20	13.903	138	59.30	80	38.43	63	69.61	55
30	13.765	137	58.50	84	37.80	62	69.06	113
Febr. 9	13.628	128	57.66	85	37.18	57	67.93	165
19	13.500	111	56.81	83	36.61	50	66.28	210
März 1	13.389	88	55.98	76	36.11	40	64.18	247
11	13.301	56	55.22	64	35.71	29	61.71	274
21	13.245	19	54.58	49	35.42	16	58.97	288
31	13.226	23	54.09	28	35.26	2	56.09	291
Apr. 10	13.249	68	53.81	5	35.24	12	53.18	283
20	13.317	114	53.76	20	35.36	26	50.35	265
30	13.431	158	53.96	47	35.62	40	47.70	237
Mai 10	13.589	200	54.43	75	36.02	51	45.33	201
20	13.789	237	55.18	100	36.53	62	43.32	159
30	14.026	268	56.18	124	37.15	71	41.73	112
Juni 9	14.294	291	57.42	145	37.86	77	40.61	61
19	14.585	307	58.87	162	38.63	81	40.00	10
29	14.892	314	60.49	174	39.44	84	39.90	41
Juli 9	15.206	314	62.23	181	40.28	84	40.31	92
19	15.520	306	64.04	185	41.12	82	41.23	140
29	15.826	290	65.89	182	41.94	79	42.63	184
Aug. 8	16.116	269	67.71	175	42.73	73	44.47	224
18	16.385	243	69.46	165	43.46	67	46.71	260
28	16.628	214	71.11	151	44.13	60	49.31	289
Sept. 7	16.842	182	72.62	134	44.73	51	52.20	313
17	17.024	148	73.96	115	45.24	41	55.33	330
27	17.172	115	75.11	95	45.65	31	58.63	341
Okt. 7	14 17.287	83	76.06	76	15 45.96	21	62.04	345
16	17.370	51	76.82	56	46.17	11	65.49	341
26	17.421	22	77.38	37	46.28	1	68.90	329
Nov. 5	17.443	7	77.75	19	46.27	12	72.19	310
15	17.436	33	77.94	1	46.15	22	75.29	282
25	17.403	57	77.95	14	45.93	33	78.11	247
Dez. 5	17.346	80	77.81	29	45.60	42	80.58	204
15	17.266	100	77.52	43	45.18	50	82.62	154
25	17.166	117	77.09	55	44.68	56	84.16	100
35	17.049		76.54		44.12		85.16	
Mittl. Ort	12.904		54.74		35.88		48.63	
sec δ, tg δ	1.035		+0.268		3.368		+3.217	
a, *a*′	+3.2		+18.6		+4.8		+18.4	
b, *b*′	+0.02		−0.38		+0.20		−0.40	

Tag	52) υ Persei AR.		52) υ Persei Dekl.		54) α Eridani AR.		54) α Eridani Dekl.		55) 43 Cassiopeiae AR.		55) 43 Cassiopeiae Dekl.		57) φ Persei AR.		57) φ Persei Dekl.	
1939	1h 34m		+48° 19′		1h 35m		−57° 32′		1h 37m		+67° 43′		1h 39m		+50° 22′	
Jan. 0	16.107	212	27.22	3	27.280	333	62.24	52	50.71	44	87.20	56	51.515	223	71.83	14
10	15.895	229	27.25	40	26.947	341	62.76	5	50.27	47	87.76	1	51.292	242	71.97	30
20	15.666	237	26.85	81	26.606	338	62.71	60	49.80	48	87.75	57	51.050	251	71.67	74
30	15.429	233	26.04	121	26.268	324	62.11	114	49.32	46	87.18	112	50.799	249	70.93	115
Febr. 9	15.196	219	24.83	154	25.944	301	60.97	165	48.86	44	86.06	161	50.550	234	69.78	151
19	14.977	191	23.29	182	25.643	268	59.32	211	48.42	39	84.45	204	50.316	208	68.27	181
März 1	14.786	153	21.47	201	25.375	226	57.21	251	48.03	31	82.41	238	50.108	169	66.46	203
11	14.633	105	19.46	213	25.149	174	54.70	285	47.72	22	80.03	263	49.939	118	64.43	217
21	14.528	49	17.33	214	24.975	116	51.85	313	47.50	13	77.40	275	49.821	60	62.26	220
31	14.479	14	15.19	207	24.859	52	48.72	335	47.37	1	74.65	278	49.761	4	60.06	215
Apr. 10	14.493	80	13.12	191	24.807	16	45.37	348	47.36	9	71.87	269	49.765	73	57.91	201
20	14.573	145	11.21	168	24.823	86	41.89	354	47.45	21	69.18	250	49.838	142	55.90	179
30	14.718	209	9.53	137	24.909	157	38.35	352	47.66	32	66.68	223	49.980	208	54.11	150
Mai 10	14.927	266	8.16	101	25.066	225	34.83	342	47.98	41	64.45	186	50.188	269	52.61	115
20	15.193	318	7.15	62	25.291	287	31.41	326	48.39	49	62.59	145	50.457	322	51.46	76
30	15.511	359	6.53	21	25.578	344	28.15	300	48.88	57	61.14	100	50.779	367	50.70	34
Juni 9	15.870	392	6.32	21	25.922	391	25.15	267	49.45	62	60.14	51	51.146	402	50.36	8
19	16.262	412	6.53	62	26.313	429	22.48	228	50.07	66	59.63	1	51.548	425	50.44	50
29	16.674	423	7.15	102	26.742	453	20.20	182	50.73	67	59.62	49	51.973	437	50.94	91
Juli 9	17.097	423	8.17	138	27.195	465	18.38	132	51.40	68	60.11	97	52.410	438	51.85	128
19	17.520	413	9.55	171	27.660	466	17.06	78	52.08	66	61.08	142	52.848	429	53.13	163
29	17.933	394	11.26	199	28.126	452	16.28	21	52.74	64	62.50	184	53.277	411	54.76	194
Aug. 8	18.327	367	13.25	223	28.578	425	16.07	37	53.38	60	64.34	222	53.688	384	56.70	219
18	18.694	333	15.48	242	29.003	388	16.44	92	53.98	55	66.56	254	54.072	351	58.89	239
28	19.027	295	17.90	255	29.391	340	17.36	146	54.53	48	69.10	282	54.423	313	61.28	255
Sept. 7	19.322	254	20.45	263	29.731	282	18.82	194	55.01	42	71.92	303	54.736	271	63.83	265
17	19.576	210	23.08	266	30.013	220	20.76	235	55.43	35	74.95	319	55.007	225	66.48	270
27	19.786	165	25.74	263	30.233	151	23.11	267	55.78	27	78.14	327	55.232	179	69.18	270
Okt. 7	19.951	119	28.37	256	30.384	81	25.78	289	56.05	19	81.41	330	55.411	132	71.88	264
16*)	[15] 20.070	73	30.93	244	[16] 30.465	11	28.67	301	[16] 56.24	10	84.71	325	55.543 [17]	84	74.52	254
26	20.143	28	33.37	227	30.476	57	31.68	300	56.34	2	87.96	312	55.627	36	77.06	237
Nov. 5	20.171	16	35.64	205	30.419	119	34.68	288	56.36	7	91.08	293	55.663	10	79.43	217
15	20.155	59	37.69	178	30.300	177	37.56	265	56.29	14	94.01	266	55.653	56	81.60	191
25	20.096	99	39.47	146	30.123	227	40.21	231	56.15	23	96.67	232	55.597	100	83.51	159
Dez. 5	19.997	138	40.93	111	29.896	268	42.52	189	55.92	30	98.99	190	55.497	141	85.10	124
15	19.859	172	42.04	72	29.628	300	44.41	141	55.62	36	100.89	143	55.356	178	86.34	84
25	19.687	201	42.76	30	29.328	324	45.82	87	55.26	42	102.32	90	55.178	210	87.18	41
35	19.486		43.06		29.004		46.69		54.84		103.22		54.968		87.59	
Mittl. Ort	14.167		11.54		26.729		46.66		47.57		67.82		49.451		55.97	
sec δ, tg δ	1.504		+1.123		1.864		−1.573		2.639		+2.443		1.568		+1.208	
a, a′	+3.7		+18.4		+2.2		+18.3		+4.4		+18.2		+3.8		+18.2	
b, b′	+0.07		−0.40		−0.10		−0.40		+0.15		−0.41		+0.07		−0.42	

*) Bei Stern 57) lies Okt. 17.

Scheinbare Sternörter 1939

Tag	59) τ Ceti [1] AR.		59) τ Ceti Dekl.		60) o Piscium AR.		60) o Piscium Dekl.		61) Lac. ε Sculptoris AR.		61) Lac. ε Sculptoris Dekl.		62) ζ Ceti AR.		62) ζ Ceti Dekl.	
1939	1h 41m		−16° 15′		1h 42m		+8° 51′		1h 42m		−25° 21′		1h 48m		−10° 37′	
	s		″		s		″		s		″		s		″	
Jan. 0	15.034	136	34.93	84	11.425	117	8.21	67	48.219	148	34.18	89	28.007	124	72.27	88
10	14.898	145	35.77	58	11.308	130	7.54	70	48.071	159	35.07	56	27.883	135	73.15	70
20	14.753	150	36.35	32	11.178	137	6.84	71	47.912	163	35.63	21	27.748	142	73.85	48
30	14.603	149	36.67	4	11.041	137	6.13	68	47.749	162	35.84	15	27.606	144	74.33	26
Febr. 9	14.454	141	36.71	25	10.904	132	5.45	63	47.587	154	35.69	50	27.462	138	74.59	3
19	14.313	126	36.46	53	10.772	118	4.82	56	47.433	139	35.19	84	27.324	125	74.62	21
März 1	14.187	104	35.93	80	10.654	96	4.26	45	47.294	115	34.35	117	27.199	105	74.41	47
11	14.083	75	35.13	108	10.558	67	3.81	31	47.179	86	33.18	149	27.094	78	73.94	72
21	14.008	41	34.05	135	10.491	32	3.50	13	47.093	50	31.69	177	27.016	44	73.22	97
31	13.967	1	32.70	160	10.459	8	3.37	9	47.043	9	29.92	203	26.972	5	72.25	122
Apr. 10	13.966	42	31.10	182	10.467	51	3.46	31	47.034	35	27.89	225	26.967	38	71.03	145
20	14.008	87	29.28	201	10.518	97	3.77	54	47.069	82	25.64	243	27.005	81	69.58	166
30	14.095	131	27.27	218	10.615	141	4.31	79	47.151	129	23.21	256	27.086	125	67.92	186
Mai 10	14.226	173	25.09	230	10.756	183	5.10	103	47.280	173	20.65	264	27.211	168	66.06	201
20	14.399	212	22.79	236	10.939	221	6.13	125	47.453	214	18.01	265	27.379	207	64.05	211
30	14.611	245	20.43	237	11.160	252	7.38	144	47.667	249	15.36	261	27.586	240	61.94	217
Juni 9	14.856	271	18.06	233	11.412	279	8.82	160	47.916	279	12.75	250	27.826	267	59.77	219
19	15.127	291	15.73	222	11.691	296	10.42	172	48.195	301	10.25	232	28.093	287	57.58	213
29	15.418	302	13.51	206	11.987	306	12.14	178	48.496	314	7.93	208	28.380	299	55.45	202
Juli 9	15.720	305	11.45	183	12.293	307	13.92	180	48.810	319	5.85	179	28.679	304	53.43	186
19	16.025	300	9.62	156	12.600	302	15.72	178	49.129	316	4.06	145	28.983	300	51.57	164
29	16.325	289	8.06	125	12.902	290	17.50	169	49.445	305	2.61	106	29.283	290	49.93	138
Aug. 8	16.614	269	6.81	90	13.192	271	19.19	157	49.750	287	1.55	64	29.573	273	48.55	108
18	16.883	245	5.91	53	13.463	248	20.76	141	50.037	262	0.91	21	29.846	250	47.47	75
28	17.128	216	5.38	16	13.711	220	22.17	123	50.299	233	0.70	22	30.096	223	46.72	41
Sept. 7	17.344	184	5.22	21	13.931	190	23.40	101	50.532	198	0.92	63	30.319	193	46.31	8
17	17.528	149	5.43	55	14.121	158	24.41	80	50.730	162	1.55	101	30.512	161	46.23	25
27	17.677	114	5.98	87	14.279	126	25.21	57	50.892	124	2.56	134	30.673	127	46.48	55
Okt. 7	17.791	79	6.85	112	14.405	95	25.78	36	51.016	87	3.90	162	30.800	94	47.03	81
17	17.870	45	7.97	133	14.500	63	26.14	16	51.103	50	5.52	182	30.894	62	47.84	102
26	17 17.915	13	9.30	146	17 14.563	34	26.30	2	18 51.153	14	7.34	193	19 30.956	31	48.86	119
Nov. 5	17.928	17	10.76	153	14.597	6	26.28	18	51.167	19	9.27	197	30.987	1	50.05	129
15	17.911	45	12.29	153	14.603	21	26.10	32	51.148	50	11.24	193	30.988	27	51.34	133
25	17.866	70	13.82	147	14.582	46	25.78	43	51.098	77	13.17	182	30.961	52	52.67	131
Dez. 5	17.796	93	15.29	136	14.536	70	25.35	52	51.021	102	14.99	162	30.909	76	53.98	124
15	17.703	112	16.65	118	14.466	91	24.83	60	50.919	123	16.61	138	30.833	97	55.22	114
25	17.591	129	17.83	98	14.375	109	24.23	64	50.796	141	17.99	109	30.736	115	56.36	99
35	17.462		18.81		14.266		23.59		50.655		19.08		30.621		57.35	
Mittl. Ort	14.035		29.59		10.158		5.00		47.271		26.11		26.898		68.67	
sec δ, tg δ	1.042		−0.292		1.012		+0.156		1.107		−0.474		1.018		−0.188	
a, a'	+2.9		+18.1		+3.2		+18.1		+2.8		+18.1		+3.0		+17.8	
b, b'	−0.02		− 0.43		+0.01		− 0.43		−0.03		− 0.43		−0.01		− 0.46	

[1]) Die jährliche Parallaxe (0ʺ.315) ist bereits berücksichtigt.

Tag	64) α Trianguli AR.		64) α Trianguli Dekl.		63) ε Cassiopeiae AR.		63) ε Cassiopeiae Dekl.		65) ξ Piscium AR.		65) ξ Piscium Dekl.		67) ψ Phoenicis AR.		67) ψ Phoenicis Dekl.	
	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1939	$1^h\ 49^m$		$+29°\ 16'$		$1^h\ 49^m$		$+63°\ 22'$		$1^h\ 50^m$		$+2°\ 53'$		$1^h\ 51^m$		$-46°\ 35'$	
	s		"		s		"		s		"		s		"	
Jan. 0	37.483	138	66.38	28	61.89	34	32.54	59	24.963	115	14.01	75	12.896	235	77.90	86
10	37.345	154	66.10	53	61.55	38	33.13	6	24.848	129	13.26	71	12.661	247	78.76	36
20	37.191	164	65.57	76	61.17	40	33.19	48	24.719	136	12.55	64	12.414	250	79.12	16
30	37.027	166	64.81	96	60.77	39	32.71	100	24.583	139	11.91	56	12.164	247	78.96	66
Febr. 9	36.861	160	63.85	112	60.38	37	31.71	147	24.444	134	11.35	45	11.917	235	78.30	114
19	36.701	144	62.73	124	60.01	33	30.24	189	24.310	122	10.90	32	11.682	213	77.16	159
März 1	36.557	120	61.49	130	59.68	28	28.35	222	24.188	102	10.58	17	11.469	183	75.57	200
11	36.437	86	60.19	130	59.40	20	26.13	246	24.086	75	10.41	1	11.286	146	73.57	237
21	36.351	45	58.89	124	59.20	12	23.67	259	24.011	40	10.42	21	11.140	101	71.20	268
31	36.306	1	57.65	111	59.08	4	21.08	263	23.971	2	10.63	43	11.039	50	68.52	294
Apr. 10	36.307	51	56.54	92	59.04	7	18.45	255	23.969	41	11.06	65	10.989	5	65.58	313
20	36.358	102	55.62	70	59.11	16	15.90	238	24.010	85	11.71	89	10.994	62	62.45	325
30	36.460	153	54.92	42	59.27	25	13.52	212	24.095	130	12.60	111	11.056	120	59.20	331
Mai 10	36.613	201	54.50	12	59.52	34	11.40	179	24.225	172	13.71	132	11.176	177	55.89	330
20	36.814	243	54.38	18	59.86	41	9.61	140	24.397	210	15.03	151	11.353	229	52.59	320
30	37.057	279	54.56	50	60.27	48	8.21	97	24.607	243	16.54	167	11.582	276	49.39	302
Juni 9	37.336	308	55.06	80	60.75	53	7.24	50	24.850	269	18.21	177	11.858	317	46.37	278
19	37.644	327	55.86	108	61.28	56	6.74	3	25.119	289	19.98	184	12.175	348	43.59	247
29	37.971	339	56.94	133	61.84	58	6.71	44	25.408	300	21.82	186	12.523	370	41.12	208
Juli 9	38.310	342	58.27	154	62.42	59	7.15	90	25.708	303	23.68	182	12.893	382	39.04	164
19	38.652	336	59.81	171	63.01	59	8.05	133	26.011	300	25.50	173	13.275	383	37.40	116
29	38.988	323	61.52	182	63.60	56	9.38	173	26.311	289	27.23	159	13.658	374	36.24	63
Aug. 8	39.311	304	63.34	190	64.16	53	11.11	208	26.600	272	28.82	142	14.032	356	35.61	9
18	39.615	279	65.24	194	64.69	49	13.19	240	26.872	249	30.24	121	14.388	328	35.52	45
28	39.894	250	67.18	192	65.18	44	15.59	265	27.121	224	31.45	97	14.716	292	35.97	98
Sept. 7	40.144	218	69.10	187	65.62	39	18.24	286	27.345	194	32.42	72	15.008	249	36.95	147
17	40.362	185	70.97	179	66.01	32	21.10	300	27.539	163	33.14	47	15.257	203	38.42	191
27	40.547	151	72.76	168	66.33	26	24.10	309	27.702	132	33.61	22	15.460	152	40.33	227
Okt. 7	40.698	116	74.44	154	66.59	20	27.19	312	27.834	100	33.83	2	15.612	99	42.60	255
17	40.814	82	75.98	138	66.79	12	30.31	307	27.934	69	33.81	22	15.711	46	45.15	273
	19				19				20				20			
26	40.896	48	77.36	121	66.91	5	33.38	296	28.003	40	33.59	40	15.757	4	47.88	279
Nov. 5	40.944	15	78.57	101	66.96	1	36.34	279	28.043	11	33.19	54	15.753	51	50.67	275
15	40.959	16	79.58	81	66.95	9	39.13	254	28.054	16	32.65	65	15.702	97	53.42	260
25	40.943	47	80.39	60	66.86	15	41.67	223	28.038	41	32.00	72	15.605	137	56.02	236
Dez. 5	40.896	77	80.99	36	66.71	22	43.90	184	27.997	65	31.28	76	15.468	172	58.38	203
15	40.819	104	81.35	11	66.49	28	45.74	140	27.932	88	30.52	78	15.296	201	60.41	162
25	40.715	127	81.46	13	66.21	33	47.14	91	27.844	107	29.74	77	15.095	225	62.03	117
35	40.588		81.33		65.88		48.05		27.737		28.97		14.870		63.20	
Mittl. Ort	35.883		56.84		58.99		14.62		23.714		13.16		12.076		64.15	
sec δ, tg δ	1.147		+0.561		2.231		+1.994		1.001		+0.050		1.455		−1.057	
a, a'	+3.4		+17.8		+4.3		+17.8		+3.1		+17.8		+2.4		+17.7	
b, b'	+0.03		− 0.46		+0.12		− 0.46		0.00		− 0.46		−0.06		− 0.47	

Scheinbare Sternörter 1939

Tag	66) β Arietis AR.	Δ	66) β Arietis Dekl.	Δ	68) χ Eridani AR.	Δ	68) χ Eridani Dekl.	Δ	72) α Hydri AR.	Δ	72) α Hydri Dekl.	Δ	71) υ Ceti AR.	Δ	71) υ Ceti Dekl.	Δ
1939	1h 51m		+20° 30′		1h 53m		−51° 54′		1h 56m		−61° 51′		1h 57m		−21° 21′	
Jan. 0	17.369	123	44.93	46	35.801	273	59.53	82	51.53	40	75.41	75	8.903	138	88.83	98
10	17.246	139	44.47	61	35.528	285	60.35	29	51.13	41	76.16	16	8.765	151	89.81	69
20	17.107	148	43.86	74	35.243	289	60.64	25	50.72	41	76.32	43	8.614	159	90.50	37
30	16.959	151	43.12	84	34.954	284	60.39	78	50.31	40	75.89	99	8.455	160	90.87	4
Febr. 9	16.808	146	42.28	92	34.670	270	59.61	129	49.91	38	74.90	152	8.295	156	90.91	29
19	16.662	132	41.36	96	34.400	245	58.32	176	49.53	35	73.38	201	8.139	143	90.62	61
März 1	16.530	110	40.40	95	34.155	212	56.56	218	49.18	30	71.37	244	7.996	122	90.01	93
11	16.420	80	39.45	89	33.943	171	54.38	255	48.88	25	68.93	282	7.874	95	89.08	124
21	16.340	42	38.56	77	33.772	121	51.83	286	48.63	18	66.11	312	7.779	61	87.84	152
31	16.298	0	37.79	61	33.651	66	48.97	312	48.45	12	62.99	336	7.718	22	86.32	178
Apr. 10	16.298	46	37.18	41	33.585	6	45.85	330	48.33	4	59.63	352	7.696	22	84.54	202
20	16.344	95	36.77	18	33.579	58	42.55	341	48.29	4	56.11	361	7.718	68	82.52	222
30	16.439	142	36.59	8	33.637	121	39.14	345	48.33	12	52.50	361	7.786	114	80.30	238
Mai 10	16.581	187	36.67	36	33.758	183	35.69	341	48.45	20	48.89	354	7.900	159	77.92	248
20	16.768	227	37.03	63	33.941	241	32.28	329	48.65	28	45.35	338	8.059	199	75.44	254
30	16.995	261	37.66	89	34.182	293	28.99	310	48.93	34	41.97	314	8.258	236	72.90	253
Juni 9	17.256	289	38.55	113	34.475	338	25.89	283	49.27	40	38.83	283	8.494	267	70.37	246
19	17.545	308	39.68	135	34.813	374	23.06	248	49.67	45	36.00	244	8.761	289	67.91	232
29	17.853	319	41.03	152	35.187	400	20.58	207	50.12	48	33.56	198	9.050	304	65.59	213
Juli 9	18.172	323	42.55	165	35.587	415	18.51	160	50.60	51	31.58	148	9.354	311	63.46	187
19	18.495	317	44.20	173	36.002	418	16.91	109	51.11	51	30.10	93	9.665	311	61.59	156
29	18.812	306	45.93	177	36.420	410	15.82	55	51.62	51	29.17	35	9.976	302	60.03	121
Aug. 8	19.118	288	47.70	177	36.830	391	15.27	2	52.13	49	28.82	24	10.278	286	58.82	83
18	19.406	264	49.47	171	37.221	361	15.29	59	52.62	46	29.06	83	10.564	264	57.99	42
28	19.670	238	51.18	163	37.582	323	15.88	112	53.08	40	29.89	139	10.828	237	57.57	0
Sept. 7	19.908	207	52.81	151	37.905	276	17.00	163	53.48	35	31.28	190	11.065	206	57.57	41
17	20.115	176	54.32	137	38.181	224	18.63	207	53.83	28	33.18	235	11.271	173	57.98	78
27	20.291	143	55.69	121	38.405	167	20.70	244	54.11	20	35.53	272	11.444	137	58.76	113
Okt. 7	20.434	110	56.90	103	38.572	109	23.14	271	54.31	13	38.25	297	11.581	102	59.89	141
17	20.544	79	57.93	86	38.681	49	25.85	288	54.44	5	41.22	313	11.683	67	61.30	163
	20				20				21				21			
26	20.623	48	58.79	68	38.730	9	28.73	293	54.49	4	44.35	315	11.750	32	62.93	178
Nov. 5	20.671	17	59.47	50	38.721	65	31.66	288	54.45	11	47.50	306	11.782	0	64.71	184
15	20.688	12	59.97	32	38.656	115	34.54	271	54.34	18	50.56	285	11.782	31	66.55	184
25	20.676	40	60.29	15	38.541	162	37.25	244	54.16	24	53.41	254	11.751	59	68.39	176
Dez. 5	20.636	67	60.44	3	38.379	202	39.69	207	53.92	30	55.95	212	11.692	85	70.15	161
15	20.569	92	60.41	20	38.177	235	41.76	164	53.62	35	58.07	164	11.607	109	71.76	141
25	20.477	113	60.21	36	37.942	260	43.40	115	53.27	38	59.71	109	11.498	128	73.17	115
35	20.364		59.85		37.682		44.55		52.89		60.80		11.370		74.32	
Mittl. Ort	15.900		38.24		35.012		44.67		50.81		58.89		7.836		81.58	
sec δ, tg δ	1.068		+0.374		1.621		−1.276		2.121		−1.870		1.074		−0.391	
a, *a′*	+3.3		+17.7		+2.3		+17.6		+1.9		+17.5		+2.8		+17.5	
b, *b′*	+0.02		−0.47		−0.07		−0.48		−0.11		−0.49		−0.02		−0.49	

Tag	70) 50 Cassiopeiae				73) γ Andromedae				74) α Arietis				75) β Trianguli			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	1h 58m		+72° 7′		2h 0m		+42° 2′		2h 3m		+23° 10′		2h 5m		+34° 41′	
Jan. 0	15.06	54	57.33	92	10.681	170	28.91	11	45.327	122	36.64	36	56.185	144	69.13	4
10	14.52	59	58.25	36	10.511	192	29.02	25	45.205	141	36.28	52	56.041	164	69.09	33
20	13.93	62	58.61	24	10.319	206	28.77	61	45.064	153	35.76	68	55.877	179	68.76	62
30	13.31	61	58.37	82	10.113	210	28.16	94	44.911	158	35.08	82	55.698	185	68.14	87
Febr. 9	12.70	58	57.55	135	9.903	204	27.22	124	44.753	155	34.26	93	55.513	181	67.27	110
19	12.12	52	56.20	184	9.699	186	25.98	148	44.598	144	33.33	99	55.332	167	66.17	128
März 1	11.60	45	54.36	225	9.513	158	24.50	167	44.454	122	32.34	101	55.165	143	64.89	141
11	11.15	34	52.11	255	9.355	118	22.83	177	44.332	92	31.33	98	55.022	109	63.48	146
21	10.81	22	49.56	276	9.237	71	21.06	180	44.240	56	30.35	89	54.913	67	62.02	145
31	10.59	9	46.80	285	9.166	16	19.26	175	44.184	12	29.46	77	54.846	18	60.57	138
Apr. 10	10.50	4	43.95	283	9.150	42	17.51	162	44.172	34	28.69	58	54.828	34	59.19	124
20	10.54	18	41.12	271	9.192	102	15.89	142	44.206	84	28.11	36	54.862	89	57.95	103
30	10.72	32	38.41	248	9.294	162	14.47	116	44.290	133	27.75	12	54.951	144	56.92	78
Mai 10	11.04	44	35.93	217	9.456	217	13.31	86	44.423	179	27.63	16	55.095	195	56.14	49
20	11.48	55	33.76	180	9.673	267	12.45	52	44.602	221	27.79	43	55.290	241	55.65	18
30	12.03	65	31.96	137	9.940	309	11.93	15	44.823	257	28.22	70	55.531	281	55.47	14
Juni 9	12.68	72	30.59	90	10.249	344	11.78	21	45.080	287	28.92	96	55.812	314	55.61	46
19	13.40	77	29.69	41	10.593	369	11.99	56	45.367	309	29.88	118	56.126	337	56.07	77
29	14.17	81	29.28	10	10.962	383	12.55	91	45.676	322	31.06	138	56.463	353	56.84	106
Juli 9	14.98	82	29.38	59	11.345	389	13.46	123	45.998	327	32.44	154	56.816	358	57.90	132
19	15.80	82	29.97	107	11.734	385	14.69	150	46.325	324	33.98	165	57.174	355	59.22	153
29	16.62	79	31.04	152	12.119	372	16.19	175	46.649	314	35.63	171	57.529	345	60.75	171
Aug. 8	17.41	76	32.56	194	12.491	353	17.94	194	46.963	298	37.34	173	57.874	328	62.46	185
18	18.17	70	34.50	230	12.844	327	19.88	210	47.261	277	39.07	172	58.202	304	64.31	193
28	18.87	64	36.80	263	13.171	296	21.98	220	47.538	250	40.79	166	58.506	277	66.24	198
Sept. 7	19.51	57	39.43	290	13.467	261	24.18	226	47.788	222	42.45	156	58.783	246	68.22	198
17	20.08	48	42.33	311	13.728	225	26.44	227	48.010	191	44.01	145	59.029	213	70.20	195
27	20.56	38	45.44	325	13.953	186	28.71	225	48.201	159	45.46	131	59.242	178	72.15	188
Okt. 7	20.94	29	48.69	334	14.139	147	30.96	218	48.360	127	46.77	116	59.420	142	74.03	179
17	$_{22}$21.23	19	52.03	335	$_{22}$14.286	106	33.14	207	$_{23}$48.487	94	47.93	99	$_{24}$59.562	107	75.82	166
26	21.42	8	55.38	328	14.392	66	35.21	194	48.581	63	48.92	82	59.669	70	77.48	151
Nov. 5	21.50	3	58.66	314	14.458	26	37.15	175	48.644	31	49.74	65	59.739	35	78.99	134
15	21.47	13	61.80	292	14.484	13	38.90	154	48.675	0	50.39	48	59.774	0	80.33	114
25	21.34	24	64.72	262	14.471	52	40.44	128	48.675	29	50.87	30	59.774	36	81.47	92
Dez. 5	21.10	34	67.34	224	14.419	90	41.72	100	48.646	59	51.17	12	59.738	70	82.39	68
15	20.76	44	69.58	178	14.329	126	42.72	67	48.587	87	51.29	6	59.668	101	83.07	42
25	20.32	51	71.36	128	14.203	157	43.39	33	48.500	111	51.23	24	59.567	131	83.49	13
35	19.81		72.64		14.046		43.72		48.389		50.99		59.436		83.62	
Mittl. Ort	10.92		38.64		8.716		16.31		43.741		29.71		54.365		58.88	
sec δ, tg δ	3.258		+3.101		1.346		+0.902		1.088		+0.428		1.216		+0.692	
a, *a′*	+5.1		+17.4		+3.7		+17.4		+3.4		+17.2		+3.6		+17.1	
b, *b′*	+0.18		− 0.49		+0.05		− 0.50		+0.02		− 0.51		+0.04		− 0.52	

Tag	76) 55 Cassiopeiae AR.		76) Dekl.		78) Lac. μ Fornacis AR.		78) Dekl.		80) 67 Ceti AR.		80) Dekl.		85) ξ² Ceti AR.		85) Dekl.	
1939	2ʰ 9ᵐ		+66° 14′		2ʰ 10ᵐ		−31° 0′		2ʰ 13ᵐ		−6° 41′		2ʰ 24ᵐ		+8° 11′	
	s		″		s		″		s		″		s		″	
Jan. 0	43.49	37	40.60	89	14.413	160	44.10	111	57.631	113	72.14	93	56.253	105	16.52	66
10	43.12	42	41.49	36	14.253	175	45.21	73	57.518	131	73.07	78	56.148	125	15.86	65
20	42.70	45	41.85	19	14.078	186	45.94	32	57.387	143	73.85	61	56.023	141	15.21	64
30	42.25	45	41.66	73	13.892	188	46.26	9	57.244	149	74.46	41	55.882	149	14.57	61
Febr. 9	41.80	44	40.93	124	13.704	184	46.17	50	57.095	147	74.87	21	55.733	150	13.96	56
19	41.36	40	39.69	169	13.520	172	45.67	89	56.948	139	75.08	0	55.583	143	13.40	48
März 1	40.96	34	38.00	208	13.348	152	44.78	127	56.809	122	75.08	23	55.440	127	12.92	38
11	40.62	27	35.92	238	13.196	123	43.51	162	56.687	97	74.85	47	55.313	103	12.54	25
21	40.35	19	33.54	257	13.073	89	41.89	193	56.590	66	74.38	70	55.210	71	12.29	10
31	40.16	8	30.97	266	12.984	47	39.96	222	56.524	28	73.68	94	55.139	33	12.19	9
Apr. 10	40.08	2	28.31	265	12.937	1	37.74	246	56.496	13	72.74	118	55.106	9	12.28	29
20	40.10	13	25.66	253	12.936	48	35.28	265	56.509	58	71.56	140	55.115	54	12.57	51
30	40.23	23	23.13	232	12.984	97	32.63	279	56.567	103	70.16	160	55.169	100	13.08	73
Mai 10	40.46	33	20.81	204	13.081	145	29.84	286	56.670	146	68.56	178	55.269	145	13.81	94
20	40.79	42	18.77	168	13.226	190	26.98	287	56.816	187	66.78	192	55.414	187	14.75	115
30	41.21	49	17.09	127	13.416	231	24.11	282	57.003	222	64.86	201	55.601	223	15.90	133
Juni 9	41.70	56	15.82	83	13.647	266	21.29	270	57.225	252	62.85	206	55.824	254	17.23	148
19	42.26	60	14.99	37	13.913	293	18.59	250	57.477	276	60.79	205	56.078	277	18.71	159
29	42.86	63	14.62	10	14.206	313	16.09	223	57.753	291	58.74	198	56.355	294	20.30	165
Juli 9	43.49	65	14.72	57	14.519	324	13.86	191	58.044	299	56.76	186	56.649	302	21.95	168
19	44.14	65	15.29	102	14.843	327	11.95	153	58.343	299	54.90	169	56.951	304	23.63	164
29	44.79	63	16.31	144	15.170	320	10.42	111	58.642	293	53.21	147	57.255	299	25.27	157
Aug. 8	45.42	61	17.75	183	15.490	308	9.31	65	58.935	280	51.74	121	57.554	286	26.84	145
18	46.03	57	19.58	217	15.798	287	8.66	17	59.215	261	50.53	91	57.840	269	28.29	129
28	46.60	52	21.75	247	16.085	260	8.49	30	59.476	238	49.62	60	58.109	248	29.58	111
Sept. 7	47.12	46	24.22	271	16.345	228	8.79	76	59.714	211	49.02	28	58.357	222	30.69	89
17	47.58	40	26.93	291	16.573	193	9.55	120	59.925	182	48.74	4	58.579	195	31.58	67
27	47.98	34	29.84	304	16.766	156	10.75	157	60.107	151	48.78	35	58.774	166	32.25	45
Okt. 7	48.32	26	32.88	312	16.922	117	12.32	188	60.258	121	49.13	61	58.940	137	32.70	24
17	24 48.58	18	36.00	312	25 17.039	77	14.20	212	26 60.379	89	49.74	83	59.077	107	32.94	4
26*)	48.76	11	39.12	306	17.116	39	16.32	226	60.468	58	50.57	102	28 59.184	77	32.98	14
Nov. 5	48.87	2	42.18	294	17.155	1	18.58	231	60.526	29	51.59	114	59.261	48	32.84	29
15	48.89	5	45.12	273	17.156	34	20.89	228	60.555	1	52.73	121	59.309	18	32.55	40
25	48.84	14	47.85	246	17.122	67	23.17	215	60.554	29	53.94	123	59.327	11	32.15	50
Dez. 5	48.70	21	50.31	210	17.055	98	25.32	194	60.525	55	55.17	120	59.316	40	31.65	57
15	48.49	29	52.41	169	16.957	125	27.26	166	60.470	80	56.37	112	59.276	67	31.08	62
25	48.20	35	54.10	122	16.832	148	28.92	134	60.390	104	57.49	101	59.209	93	30.46	64
35	47.85		55.32		16.684		30.26		60.286		58.50		59.116		29.82	
Mittl. Ort	40.04		23.52		13.340		33.80		56.347		68.98		54.755		15.35	
sec δ, tg δ	2.482		+2.272		1.167		−0.601		1.007		−0.117		1.010		+0.144	
a, *a′*	+4.7		+16.9		+2.6		+16.9		+3.0		+16.7		+3.2		+16.2	
b, *b′*	+0.13		−0.54		−0.03		−0.54		−0.01		−0.55		+0.01		−0.59	

*) Bei Stern 85) lies Okt. 27.

Tag	87) 36 H. Cassiopeiae AR.		87) 36 H. Cassiopeiae Dekl.		90) μ Hydri AR.		90) μ Hydri Dekl.	
1939	$2^h\ 32^m$		$+72°\ 33'$		$2^h\ 32^m$		$-79°\ 22'$	
Jan. 0	16.04	50	28.03	134	56.33	115	50.61	97
10	15.54	57	29.37	79	55.18	121	51.58	36
20	14.97	62	30.16	22	53.97	124	51.94	25
30	14.35	64	30.38	36	52.73	123	51.69	85
Febr. 9	13.71	63	30.02	92	51.50	119	50.84	140
19	13.08	59	29.10	144	50.31	112	49.44	192
März 1	12.49	53	27.66	191	49.19	102	47.52	238
11	11.96	43	25.75	228	48.17	89	45.14	278
21	11.53	32	23.47	256	47.28	75	42.36	311
31	11.21	20	20.91	274	46.53	59	39.25	336
Apr. 10	11.01	6	18.17	281	45.94	41	35.89	354
20	10.95	8	15.36	276	45.53	22	32.35	364
30	11.03	23	12.60	263	45.31	3	28.71	366
Mai 10	11.26	36	9.97	240	45.28	17	25.05	360
20	11.62	48	7.57	210	45.45	36	21.45	345
30	12.10	58	5.47	172	45.81	54	18.00	323
Juni 9	12.68	68	3.75	130	46.35	71	14.77	292
19	13.36	75	2.45	85	47.06	86	11.85	254
29	14.11	81	1.60	38	47.92	98	9.31	209
Juli 9	14.92	84	1.22	10	48.90	108	7.22	159
19	15.76	85	1.32	58	49.98	114	5.63	103
29	16.61	84	1.90	103	51.12	117	4.60	43
Aug. 8	17.45	82	2.93	147	52.29	117	4.17	17
18	18.27	78	4.40	187	53.46	112	4.34	77
28	19.05	73	6.27	222	54.58	104	5.11	136
Sept. 7	19.78	67	8.49	254	55.62	93	6.47	190
17	20.45	59	11.03	280	56.55	78	8.37	239
27	21.04	51	13.83	300	57.33	60	10.76	279
Okt. 7	21.55	41	16.83	315	57.93	40	13.55	309
17	21.96	31	19.98	324	58.33	19	16.64	328
27	^{30}22.27	20	23.22	324	^{30}58.52	3	19.92	333
Nov. 5	22.47	9	26.46	318	58.49	24	23.25	327
15	22.56	2	29.64	304	58.25	46	26.52	309
25	22.54	14	32.68	281	57.79	66	29.61	278
Dez. 5	22.40	26	35.49	250	57.13	83	32.39	237
15	22.14	36	37.99	212	56.30	97	34.76	188
25	21.78	46	40.11	166	55.33	109	36.64	132
35	21.32		41.77		54.24		37.96	
Mittl. Ort	11.20		11.81		55.00		32.50	
sec δ, tg δ	3.335		+3.182		5.424		−5.331	
a, *a′*	+5.7		+15.8		−1.3		+15.7	
b, *b′*	+0.17		− 0.62		−0.28		− 0.62	

Tag	89) ν Arietis AR.		89) ν Arietis Dekl.		91) δ Ceti AR.		91) δ Ceti Dekl.	
1939	$2^h\ 35^m$		$+21°\ 41'$		$2^h\ 36^m$		$+0°\ 3'$	
Jan. 0	22.582	108	60.12	27	22.674	102	56.88	85
10	22.474	132	59.85	41	22.572	124	56.03	77
20	22.342	151	59.44	54	22.448	140	55.26	66
30	22.191	162	58.90	65	22.308	150	54.60	53
Febr. 9	22.029	165	58.25	75	22.158	153	54.07	39
19	21.864	159	57.50	81	22.005	149	53.68	24
März 1	21.705	143	56.69	84	21.856	134	53.44	7
11	21.562	118	55.85	82	21.722	112	53.37	11
21	21.444	84	55.03	76	21.610	83	53.48	32
31	21.360	44	54.27	66	21.527	46	53.80	53
Apr. 10	21.316	1	53.61	51	21.481	5	54.33	75
20	21.317	50	53.10	32	21.476	39	55.08	97
30	21.367	100	52.78	11	21.515	85	56.05	118
Mai 10	21.467	147	52.67	13	21.600	129	57.23	137
20	21.614	192	52.80	37	21.729	171	58.60	155
30	21.806	231	53.17	61	21.900	208	60.15	168
Juni 9	22.037	264	53.78	85	22.108	240	61.83	178
19	22.301	291	54.63	105	22.348	266	63.61	182
29	22.592	308	55.68	122	22.614	284	65.43	183
Juli 9	22.900	319	56.90	136	22.898	295	67.26	178
19	23.219	322	58.26	147	23.193	298	69.04	167
29	23.541	317	59.73	152	23.491	295	70.71	152
Aug. 8	23.858	307	61.25	154	23.786	285	72.23	132
18	24.165	290	62.79	151	24.071	270	73.55	109
28	24.455	268	64.30	145	24.341	251	74.64	83
Sept. 7	24.723	244	65.75	136	24.592	226	75.47	56
17	24.967	218	67.11	125	24.818	200	76.03	27
27	25.185	188	68.36	112	25.018	173	76.30	0
Okt. 7	25.373	158	69.48	97	25.191	144	76.30	25
17	25.531	128	70.45	82	25.335	114	76.05	47
27	^{31}25.659	97	71.27	68	^{31}25.449	84	75.58	66
Nov. 5	25.756	65	71.95	53	25.533	54	74.92	80
15	25.821	32	72.48	39	25.587	25	74.12	89
25	25.853	0	72.87	24	25.612	5	73.23	95
Dez. 5	25.853	32	73.11	11	25.607	35	72.28	97
15	25.821	64	73.22	4	25.572	62	71.31	94
25	25.757	94	73.18	18	25.510	89	70.37	89
35	25.663		73.00		25.421		69.48	
Mittl. Ort	20.838		55.32		21.207		58.73	
sec δ, tg δ	1.076		+0.398		1.000		+0.001	
a, *a′*	+3.4		+15.6		+3.1		+15.6	
b, *b′*	+0.02		− 0.63		0.00		− 0.63	

Scheinbare Sternörter 1939

Tag	93) ϑ Persei AR.		93) ϑ Persei Dekl.		97) π Ceti AR.		97) π Ceti Dekl.	
1939	$2^h\ 40^m$		+48° 58′		$2^h\ 41^m$		−14° 6′	
	s		″		s		″	
Jan. 0	3.801	175	29.86	65	14.467	113	64.12	116
10	3.626	211	30.51	27	14.354	135	65.28	93
20	3.415	237	30.78	13	14.219	152	66.21	67
30	3.178	253	30.65	54	14.067	162	66.88	40
Febr. 9	2.925	256	30.11	91	13.905	165	67.28	12
19	2.669	244	29.20	124	13.740	160	67.40	16
März 1	2.425	221	27.96	153	13.580	147	67.24	45
11	2.204	183	26.43	175	13.433	125	66.79	73
21	2.021	134	24.68	190	13.308	95	66.06	101
31	1.887	77	22.78	195	13.213	60	65.05	127
Apr. 10	1.810	12	20.83	193	13.153	19	63.78	153
20	1.798	55	18.90	183	13.134	26	62.25	175
30	1.853	123	17.07	165	13.160	72	60.50	195
Mai 10	1.976	189	15.42	142	13.232	117	58.55	211
20	2.165	250	14.00	112	13.349	160	56.44	223
30	2.415	303	12.88	80	13.509	199	54.21	229
Juni 9	2.718	349	12.08	45	13.708	233	51.92	230
19	3.067	385	11.63	9	13.941	261	49.62	225
29	3.452	410	11.54	28	14.202	281	47.37	214
Juli 9	3.862	426	11.82	63	14.483	294	45.23	197
19	4.288	431	12.45	95	14.777	299	43.26	173
29	4.719	427	13.40	126	15.076	298	41.53	145
Aug. 8	5.146	414	14.66	153	15.374	290	40.08	113
18	5.560	395	16.19	176	15.664	275	38.95	77
28	5.955	369	17.95	196	15.939	255	38.18	39
Sept. 7	6.324	338	19.91	210	16.194	232	37.79	1
17	6.662	302	22.01	221	16.426	205	37.78	37
27	6.964	264	24.22	228	16.631	176	38.15	71
Okt. 7	7.228	223	26.50	230	16.807	145	38.86	103
17	7.451	180	28.80	229	16.952	114	39.89	129
27	1 7.631	135	31.09	222	1 17.066	82	41.18	148
Nov. 5	7.766	87	33.31	212	17.148	50	42.66	162
15	7.853	38	35.43	196	17.198	18	44.28	167
25	7.891	11	37.39	176	17.216	13	45.95	166
Dez. 5	7.880	60	39.15	152	17.203	43	47.61	159
15	7.820	110	40.67	122	17.160	73	49.20	146
25	7.710	154	41.89	88	17.087	100	50.66	128
35	7.556		42.77		16.987		51.94	
Mittl. Ort	1.282		18.23		13.099		57.87	
sec δ, tg δ	1.523		+1.149		1.031		−0.251	
a, *a′*	+4.1		+15.4		+2.9		+15.3	
b, *b′*	+0.06		− 0.64		−0.01		− 0.65	

Tag	98) μ Ceti AR.		98) μ Ceti Dekl.		100) 41 Arietis AR.		100) 41 Arietis Dekl.	
1939	$2^h\ 41^m$		+9° 51′		$2^h\ 46^m$		+27° 0′	
	s		″		s		″	
Jan. 0	40.065	98	28.41	60	25.144	108	42.72	6
10	39.967	121	27.81	62	25.036	136	42.66	24
20	39.846	140	27.19	62	24.900	158	42.42	43
30	39.706	151	26.57	59	24.742	172	41.99	60
Febr. 9	39.555	155	25.98	56	24.570	176	41.39	75
19	39.400	152	25.42	51	24.394	172	40.64	87
März 1	39.248	138	24.91	43	24.222	158	39.77	96
11	39.110	115	24.48	31	24.064	132	38.81	100
21	38.995	85	24.17	18	23.932	98	37.81	98
31	38.910	48	23.99	1	23.834	57	36.83	92
Apr. 10	38.862	6	23.98	18	23.777	10	35.91	81
20	38.856	39	24.16	38	23.767	41	35.10	65
30	38.895	86	24.54	58	23.808	92	34.45	45
Mai 10	38.981	131	25.12	80	23.900	142	34.00	22
20	39.112	174	25.92	101	24.042	190	33.78	2
30	39.286	213	26.93	119	24.232	231	33.80	28
Juni 9	39.499	245	28.12	135	24.463	267	34.08	53
19	39.744	271	29.47	147	24.730	296	34.61	76
29	40.015	289	30.94	155	25.026	316	35.37	97
Juli 9	40.304	301	32.49	158	25.342	328	36.34	116
19	40.605	305	34.07	158	25.670	333	37.50	130
29	40.910	301	35.65	152	26.003	330	38.80	142
Aug. 8	41.211	293	37.17	142	26.333	321	40.22	148
18	41.504	277	38.59	127	26.654	306	41.70	152
28	41.781	258	39.86	111	26.960	286	43.22	150
Sept. 7	42.039	236	40.97	91	27.246	262	44.72	147
17	42.275	210	41.88	71	27.508	235	46.19	141
27	42.485	183	42.59	49	27.743	207	47.60	131
Okt. 7	42.668	154	43.08	29	27.950	177	48.91	121
17	42.822	125	43.37	10	28.127	146	50.12	110
27	2 42.947	96	43.47	7	3 28.273	114	51.22	97
Nov. 5	43.043	66	43.40	21	28.387	80	52.19	84
15	43.109	35	43.19	34	28.467	46	53.03	69
25	43.144	5	42.85	43	28.513	11	53.72	55
Dez. 5	43.149	26	42.42	50	28.524	24	54.27	40
15	43.123	56	41.92	56	28.500	59	54.67	23
25	43.067	84	41.36	58	28.441	93	54.90	5
35	42.983		40.78		28.348		54.95	
Mittl. Ort	38.461		27.48		23.243		37.02	
sec δ, tg δ	1.015		+0.174		1.122		+0.510	
a, *a′*	+3.2		+15.3		+3.5		+15.0	
b, *b′*	+0.01		− 0.65		+0.03		− 0.66	

Tag	101) β Fornacis AR.		Dekl.		102) τ^2 Eridani AR.		Dekl.		103) τ Persei AR.		Dekl.		104) η Eridani AR.		Dekl.	
1939	$2^h\ 46^m$		$-32°\ 39'$		$2^h\ 48^m$		$-21°\ 14'$		$2^h\ 49^m$		$+52°\ 30'$		$2^h\ 53^m$		$-9°\ 8'$	
	s		″		s		″		s		″		s		″	
Jan. 0	33.497	154	51.94	143	17.611	124	85.61	132	57.909	188	63.12	85	28.225	102	29.02	112
10	33.343	177	53.37	104	17.487	146	86.93	102	57.721	228	63.97	46	28.123	126	30.14	94
20	33.166	195	54.41	62	17.341	163	87.95	70	57.493	260	64.43	4	27.997	145	31.08	73
30	32.971	204	55.03	19	17.178	175	88.65	36	57.233	279	64.47	39	27.852	158	31.81	50
Febr. 9	32.767	207	55.22	24	17.003	179	89.01	1	56.954	284	64.08	80	27.694	163	32.31	27
19	32.560	201	54.98	67	16.824	174	89.02	33	56.670	275	63.28	118	27.531	160	32.58	2
März 1	32.359	186	54.31	108	16.650	161	88.69	67	56.395	250	62.10	151	27.371	150	32.60	22
11	32.173	161	53.23	146	16.489	140	88.02	100	56.145	212	60.59	176	27.221	129	32.38	48
21	32.012	130	51.77	181	16.349	111	87.02	131	55.933	162	58.83	195	27.092	101	31.90	72
31	31.882	90	49.96	213	16.238	74	85.71	160	55.771	100	56.88	205	26.991	67	31.18	98
Apr. 10	31.792	46	47.83	240	16.164	32	84.11	187	55.671	32	54.83	206	26.924	26	30.20	122
20	31.746	3	45.43	263	16.132	13	82.24	210	55.639	40	52.77	200	26.898	17	28.98	145
30	31.749	54	42.80	280	16.145	59	80.14	229	55.679	113	50.77	185	26.915	62	27.53	166
Mai 10	31.803	104	40.00	291	16.204	107	77.85	244	55.792	184	48.92	163	26.977	108	25.87	183
20	31.907	152	37.09	296	16.311	152	75.41	253	55.976	251	47.29	136	27.085	151	24.04	197
30	32.059	198	34.13	294	16.463	192	72.88	257	56.227	309	45.93	104	27.236	191	22.07	206
Juni 9	32.257	237	31.19	284	16.655	229	70.31	253	56.536	360	44.89	69	27.427	225	20.01	211
19	32.494	270	28.35	267	16.884	258	67.78	244	56.896	401	44.20	33	27.652	253	17.90	210
29	32.764	297	25.68	243	17.142	281	65.34	228	57.297	430	43.87	5	27.905	274	15.80	203
Juli 9	33.061	314	23.25	212	17.423	297	63.06	205	57.727	449	43.92	41	28.179	289	13.77	191
19	33.375	325	21.13	175	17.720	304	61.01	177	58.176	458	44.33	77	28.468	295	11.86	172
29	33.700	325	19.38	132	18.024	305	59.24	142	58.634	457	45.10	110	28.763	295	10.14	149
Aug. 8	34.025	319	18.06	86	18.329	298	57.82	105	59.091	446	46.20	140	29.058	289	8.65	121
18	34.344	305	17.20	37	18.627	284	56.77	63	59.537	427	47.60	166	29.347	277	7.44	90
28	34.649	285	16.83	14	18.911	265	56.14	20	59.964	403	49.26	189	29.624	259	6.54	56
Sept. 7	34.934	259	16.97	64	19.176	242	55.94	24	60.367	371	51.15	208	29.883	237	5.98	20
17	35.193	228	17.61	111	19.418	215	56.18	66	60.738	335	53.23	222	30.120	213	5.78	15
27	35.421	193	18.72	154	19.633	185	56.84	104	61.073	296	55.45	232	30.333	185	5.93	47
Okt. 7	35.614	157	20.26	190	19.818	153	57.88	139	61.369	252	57.77	239	30.518	157	6.40	78
17	35.771	119	22.16	220	19.971	119	59.27	167	61.621	206	60.16	240	30.675	127	7.18	103
27	35.890	79	24.36	239	20.090	86	60.94	187	61.827	158	62.56	237	30.802	97	8.21	123
Nov. 5	[3] 35.969	40	26.75	249	[3] 20.176	52	62.81	199	[4] 61.985	106	64.93	229	[5] 30.899	66	9.44	138
15	36.009	1	29.24	251	20.228	17	64.80	204	62.091	52	67.22	216	30.965	34	10.82	146
25	36.010	37	31.75	241	20.245	16	66.84	200	62.143	2	69.38	197	30.999	3	12.28	147
Dez. 5	35.973	73	34.16	223	20.229	48	68.84	190	62.141	58	71.35	173	31.002	28	13.75	144
15	35.900	107	36.39	198	20.181	79	70.74	171	62.083	112	73.08	144	30.974	59	15.19	135
25	35.793	138	38.37	165	20.102	108	72.45	148	61.971	164	74.52	110	30.915	87	16.54	121
35	35.655		40.02		19.994		73.93		61.807		75.62		30.828		17.75	
Mittl. Ort	32.209		40.65		16.253		77.20		55.138		51.49		26.756		23.86	
sec δ, tg δ	1.188		−0.641		1.073		−0.389		1.643		+1.304		1.013		−0.161	
a, *a′*	+2.5		+15.0		+2.7		+14.9		+4.2		+14.8		+2.9		+14.6	
b, *b′*	−0.03		−0.66		−0.02		−0.67		+0.06		−0.68		−0.01		−0.69	

Scheinbare Sternörter 1939

Tag	106) ϑ Eridani AR.		106) ϑ Eridani Dekl.		105) 47 H. Cephei AR.		105) 47 H. Cephei Dekl.	
1939	$2^h\ 55^m$		$-40°\ 32'$		$2^h\ 57^m$		$+79°\ 10'$	
Jan. 0	58.066	181	66.77	159	61.53	79	64.76	182
10	57.885	209	68.36	113	60.74	92	66.58	128
20	57.676	228	69.49	66	59.82	101	67.86	69
30	57.448	240	70.15	17	58.81	106	68.55	9
Febr. 9	57.208	243	70.32	31	57.75	106	68.64	51
19	56.965	237	70.01	79	56.69	103	68.13	110
März 1	56.728	222	69.22	124	55.66	94	67.03	163
11	56.506	196	67.98	166	54.72	81	65.40	209
21	56.310	162	66.32	203	53.91	65	63.31	246
31	56.148	121	64.29	238	53.26	45	60.85	273
Apr. 10	56.027	74	61.91	266	52.81	25	58.12	289
20	55.953	21	59.25	289	52.56	3	55.23	294
30	55.932	34	56.36	307	52.53	19	52.29	289
Mai 10	55.966	89	53.29	317	52.72	41	49.40	273
20	56.055	142	50.12	319	53.13	62	46.67	249
30	56.197	192	46.93	314	53.75	79	44.18	218
Juni 9	56.389	237	43.79	303	54.54	95	42.00	180
19	56.626	276	40.76	282	55.49	109	40.20	137
29	56.902	307	37.94	254	56.58	119	38.83	91
Juli 9	57.209	329	35.40	219	57.77	126	37.92	43
19	57.538	343	33.21	177	59.03	131	37.49	6
29	57.881	349	31.44	131	60.34	132	37.55	54
Aug. 8	58.230	344	30.13	79	61.66	131	38.09	101
18	58.574	332	29.34	26	62.97	128	39.10	146
28	58.906	312	29.08	29	64.25	122	40.56	187
Sept. 7	59.218	286	29.37	84	65.47	113	42.43	225
17	59.504	253	30.21	134	66.60	103	44.68	258
27	59.757	216	31.55	180	67.63	90	47.26	287
Okt. 7	59.973	175	33.35	220	68.53	76	50.13	309
17	60.148	132	35.55	250	69.29	60	53.22	325
27	60.280	87	38.05	271	69.89	43	56.47	335
Nov. 5*)	[5] 60.367	42	40.76	282	[6] 70.32	25	59.82	336
15	60.409	3	43.58	281	70.57	6	63.18	329
25	60.406	47	46.39	270	70.63	15	66.47	314
Dez. 5	60.359	88	49.09	249	70.48	34	69.61	289
15	60.271	127	51.58	220	70.14	53	72.50	255
25	60.144	163	53.78	183	69.61	70	75.05	213
35	59.981		55.61		68.91		77.18	
Mittl. Ort	56.743		53.65		53.51		50.06	
sec δ, tg δ	1.316		−0.856		5.327		+5.233	
a, *a'*	+2.3		+14.4		+8.0		+14.3	
b, *b'*	−0.04		−0.69		+0.25		−0.70	

Tag	107) α Ceti AR.		107) α Ceti Dekl.		108) γ Persei AR.		108) γ Persei Dekl.	
1939	$2^h\ 59^m$		$+3°\ 50'$		$3^h\ 0^m$		$+53°\ 16'$	
Jan. 0	6.889	91	63.78	79	24.753	182	19.67	97
10	6.798	117	62.99	73	24.571	227	20.64	58
20	6.681	137	62.26	65	24.344	262	21.22	16
30	6.544	152	61.61	57	24.082	284	21.38	26
Febr. 9	6.392	159	61.04	46	23.798	293	21.12	69
19	6.233	158	60.58	35	23.505	286	20.43	108
März 1	6.075	147	60.23	22	23.219	264	19.35	141
11	5.928	128	60.01	6	22.955	228	17.94	170
21	5.800	100	59.95	11	22.727	178	16.24	190
31	5.700	65	60.06	30	22.549	117	14.34	203
Apr. 10	5.635	25	60.36	50	22.432	49	12.31	207
20	5.610	19	60.86	70	22.383	24	10.24	203
30	5.629	65	61.56	91	22.407	98	8.21	190
Mai 10	5.694	110	62.47	110	22.505	171	6.31	171
20	5.804	154	63.57	128	22.676	240	4.60	146
30	5.958	193	64.85	144	22.916	301	3.14	116
Juni 9	6.151	227	66.29	156	23.217	354	1.98	81
19	6.378	255	67.85	164	23.571	398	1.17	46
29	6.633	276	69.49	167	23.969	430	0.71	10
Juli 9	6.909	290	71.16	166	24.399	452	0.61	27
19	7.199	297	72.82	159	24.851	463	0.88	62
29	7.496	297	74.41	148	25.314	465	1.50	96
Aug. 8	7.793	290	75.89	132	25.779	457	2.46	126
18	8.083	279	77.21	113	26.236	441	3.72	154
28	8.362	262	78.34	91	26.677	417	5.26	178
Sept. 7	8.624	242	79.25	66	27.094	389	7.04	197
17	8.866	218	79.91	40	27.483	354	9.01	214
27	9.084	193	80.31	16	27.837	315	11.15	226
Okt. 7	9.277	167	80.47	8	28.152	272	13.41	234
17	9.444	138	80.39	30	28.424	227	15.75	238
27	9.582	109	80.09	48	28.651	177	18.13	236
Nov. 5*)	[6] 9.691	79	79.61	63	[6] 28.828	125	20.49	231
15	9.770	49	78.98	73	28.953	71	22.80	220
25	9.819	17	78.25	79	29.024	13	25.00	203
Dez. 5	9.836	14	77.46	83	29.037	45	27.03	181
15	9.822	46	76.63	83	28.992	101	28.84	153
25	9.776	76	75.80	81	28.891	156	30.37	121
35	9.700		74.99		28.735		31.58	
Mittl. Ort	5.269		65.39		21.859		8.71	
sec δ, tg δ	1.002		+0.067		1.672		+1.340	
a, *a'*	+3.1		+14.2		+4.3		+14.1	
b, *b'*	0.00		−0.70		+0.06		−0.71	

*) Bei Stern 105), 107) und 108) lies Nov. 6.

Tag	109) ρ Persei AR.		Dekl.		110) μ Horologii AR.		Dekl.		111) β Persei AR.		Dekl.		114) δ Arietis AR.		Dekl.	
1939	3h 1m		+38° 36′		3h 2m		−59° 57′		3h 4m		+40° 43′		3h 8m		+19° 29′	
Jan. 0	17.842	121	26.82	43	11.698	338	102.50	164	13.836	125	27.41	53	10.056	89	52.68	26
10	17.721	157	27.25	16	11.360	374	104.14	110	13.711	162	27.94	24	9.967	118	52.42	35
20	17.564	184	27.41	14	10.986	401	105.24	53	13.549	191	28.18	7	9.849	142	52.07	43
30	17.380	202	27.27	42	10.585	414	105.77	5	13.358	211	28.11	37	9.707	160	51.64	52
Febr. 9	17.178	211	26.85	70	10.171	415	105.72	61	13.147	220	27.74	67	9.547	170	51.12	59
19	16.967	209	26.15	95	9.756	403	105.11	115	12.927	218	27.07	95	9.377	169	50.53	63
März 1	16.758	193	25.20	115	9.353	378	103.96	166	12.709	202	26.12	117	9.208	159	49.90	66
11	16.565	167	24.05	131	8.975	340	102.30	213	12.507	175	24.95	135	9.049	139	49.24	64
21	16.398	129	22.74	141	8.635	292	100.17	253	12.332	138	23.60	146	8.910	110	48.60	59
31	16.269	83	21.33	143	8.343	233	97.64	287	12.194	90	22.14	152	8.800	74	48.01	51
Apr. 10	16.186	31	19.90	140	8.110	165	94.77	316	12.104	36	20.62	149	8.726	30	47.50	38
20	16.155	26	18.50	131	7.945	92	91.61	338	12.068	22	19.13	141	8.696	17	47.12	23
30	16.181	84	17.19	114	7.853	15	88.23	350	12.090	82	17.72	127	8.713	65	46.89	4
Mai 10	16.265	142	16.05	94	7.838	64	84.73	357	12.172	141	16.45	106	8.778	113	46.85	16
20	16.407	195	15.11	69	7.902	141	81.16	354	12.313	196	15.39	82	8.891	160	47.01	37
30	16.602	244	14.42	43	8.043	215	77.62	343	12.509	247	14.57	55	9.051	202	47.38	58
Juni 9	16.846	286	13.99	14	8.258	284	74.19	323	12.756	290	14.02	26	9.253	238	47.96	77
19	17.132	320	13.85	15	8.542	344	70.96	296	13.046	326	13.76	3	9.491	268	48.73	95
29	17.452	346	14.00	44	8.886	395	68.00	260	13.372	352	13.79	33	9.759	291	49.68	111
Juli 9	17.798	362	14.44	70	9.281	435	65.40	216	13.724	370	14.12	62	10.050	306	50.79	122
19	18.160	370	15.14	95	9.716	464	63.24	167	14.094	380	14.74	87	10.356	314	52.01	130
29	18.530	371	16.09	116	10.180	478	61.57	112	14.474	380	15.61	110	10.670	314	53.31	134
Aug. 8	18.901	363	17.25	134	10.658	480	60.45	53	14.854	373	16.71	131	10.984	310	54.65	133
18	19.264	349	18.59	149	11.138	468	59.92	7	15.227	360	18.02	147	11.294	298	55.98	130
28	19.613	331	20.08	160	11.606	444	59.99	68	15.587	341	19.49	160	11.592	282	57.28	122
Sept. 7	19.944	307	21.68	167	12.050	407	60.67	128	15.928	317	21.09	169	11.874	263	58.50	113
17	20.251	280	23.35	172	12.457	360	61.95	183	16.245	290	22.78	177	12.137	241	59.63	100
27	20.531	249	25.07	172	12.817	303	63.78	232	16.535	260	24.55	179	12.378	215	60.63	86
Okt. 7	20.780	217	26.79	171	13.120	239	66.10	273	16.795	226	26.34	179	12.593	188	61.49	73
17	20.997	183	28.50	167	13.359	168	68.83	303	17.021	191	28.13	176	12.781	160	62.22	59
27	21.180	146	30.17	159	13.527	94	71.86	322	17.212	154	29.89	170	12.941	130	62.81	45
Nov. 6	7 21.326	107	31.76	150	7 13.621	20	75.08	330	7 17.366	113	31.59	162	8 13.071	100	63.26	32
15	21.433	68	33.26	139	13.641	55	78.38	324	17.479	72	33.21	151	13.171	67	63.58	21
25	21.501	26	34.65	123	13.586	126	81.62	308	17.551	28	34.72	135	13.238	32	63.79	10
Dez. 5	21.527	18	35.88	104	13.460	194	84.70	279	17.579	17	36.07	117	13.270	2	63.89	1
15	21.509	60	36.92	84	13.266	255	87.49	241	17.562	61	37.24	96	13.268	37	63.90	10
25	21.449	101	37.76	60	13.011	308	89.90	195	17.501	104	38.20	71	13.231	71	63.80	19
35	21.348		38.36		12.703		91.85		17.397		38.91		13.160		63.61	
Mittl. Ort	15.569		19.09		10.277		86.18		11.478		19.40		8.181		50.31	
sec δ, tg δ	1.280		+0.798		1.998		−1.730		1.320		+0.861		1.061		+0.354	
a, a'	+3.8		+14.1		+1.4		+14.0		+3.9		+13.9		+3.4		+13.7	
b, b'	+0.04		−0.71		−0.08		−0.71		+0.04		−0.72		+0.02		−0.73	

Scheinbare Sternörter 1939

Tag	117) 12 Eridani AR.		117) 12 Eridani Dekl.		115) 48 H. Cephei AR.		115) 48 H. Cephei Dekl.		120) α Persei AR.		120) α Persei Dekl.		121) o Tauri AR.		121) o Tauri Dekl.	
1939	$3^h\ 9^m$		$-29°\ 13'$		$3^h\ 12^m$		$+77°\ 30'$		$3^h\ 19^m$		$+49°\ 38'$		$3^h\ 21^m$		$+8°\ 48'$	
	s		"		s		"		s		"		s		"	
Jan. 0	30.116	133	46.61	157	37.53	63	62.50	191	60.205	144	53.14	98	33.440	78	54.27	64
10	29.983	159	48.18	122	36.90	75	64.41	141	60.061	190	54.12	64	33.362	109	53.63	62
20	29.824	181	49.40	83	36.15	84	65.82	85	59.871	228	54.76	27	33.253	133	53.01	58
30	29.643	197	50.23	42	35.31	90	66.67	25	59.643	254	55.03	11	33.120	152	52.43	55
Febr. 9	29.446	203	50.65	0	34.41	92	66.92	34	59.389	269	54.92	49	32.968	164	51.88	50
19	29.243	202	50.65	41	33.49	90	66.58	92	59.120	268	54.43	86	32.804	166	51.38	43
März 1	29.041	192	50.24	80	32.59	84	65.66	145	58.852	254	53.57	118	32.638	159	50.95	34
11	28.849	171	49.44	119	31.75	74	64.21	193	58.598	226	52.39	145	32.479	142	50.61	24
21	28.678	142	48.25	154	31.01	60	62.28	231	58.372	183	50.94	167	32.337	117	50.37	12
31	28.536	107	46.71	187	30.41	45	59.97	261	58.189	130	49.27	180	32.220	83	50.25	3
Apr. 10	28.429	65	44.84	217	29.96	27	57.36	280	58.059	69	47.47	186	32.137	44	50.28	20
20	28.364	18	42.67	241	29.69	7	54.56	288	57.990	2	45.61	184	32.093	1	50.48	37
30	28.346	31	40.26	262	29.62	12	51.68	286	57.988	66	43.77	175	32.094	46	50.85	57
Mai 10	28.377	80	37.64	276	29.74	30	48.82	274	58.054	136	42.02	159	32.140	92	51.42	76
20	28.457	128	34.88	285	30.04	49	46.08	253	58.190	200	40.43	137	32.232	137	52.18	94
30	28.585	174	32.03	286	30.53	65	43.55	224	58.390	260	39.06	111	32.369	179	53.12	111
Juni 9	28.759	215	29.17	281	31.18	80	41.31	189	58.650	313	37.95	81	32.548	214	54.23	125
19	28.974	249	26.36	269	31.98	92	39.42	149	58.963	356	37.14	50	32.762	245	55.48	136
29	29.223	277	23.67	249	32.90	102	37.93	106	59.319	390	36.64	17	33.007	269	56.84	144
Juli 9	29.500	298	21.18	223	33.92	109	36.87	59	59.709	415	36.47	16	33.276	286	58.28	146
19	29.798	311	18.95	189	35.01	114	36.28	12	60.124	429	36.63	47	33.562	295	59.74	144
29	30.109	315	17.06	150	36.15	117	36.16	35	60.553	435	37.10	78	33.857	299	61.18	138
Aug. 8	30.424	313	15.56	107	37.32	116	36.51	81	60.988	431	37.88	106	34.156	296	62.56	128
18	30.737	304	14.49	59	38.48	114	37.32	125	61.419	421	38.94	130	34.452	288	63.84	113
28	31.041	288	13.90	10	39.62	110	38.57	168	61.840	403	40.24	152	34.740	274	64.97	96
Sept. 7	31.329	267	13.80	39	40.72	103	40.25	205	62.243	379	41.76	170	35.014	257	65.93	76
17	31.596	241	14.19	87	41.75	95	42.30	238	62.622	351	43.46	186	35.271	237	66.69	55
27	31.837	211	15.06	131	42.70	84	44.68	269	62.973	318	45.32	197	35.508	214	67.24	33
Okt. 7	32.048	178	16.37	170	43.54	73	47.37	293	63.291	282	47.29	205	35.722	189	67.57	12
17	32.226	143	18.07	201	44.27	60	50.30	311	63.573	241	49.34	209	35.911	162	67.69	6
27	32.369	107	20.08	225	44.87	45	53.41	323	63.814	198	51.43	210	36.073	135	67.63	24
Nov. 6	32.476	69	22.33	240	45.32	30	56.64	327	64.012	150	53.53	206	36.208	105	67.39	37
15	(9) 32.545	31	24.73	244	(9) 45.62	13	59.91	324	(11) 64.162	101	55.59	199	(12) 36.313	73	67.02	49
25	32.576	7	27.17	240	45.75	5	63.15	311	64.263	47	57.58	186	36.386	41	66.53	56
Dez. 5	32.569	45	29.57	227	45.70	22	66.26	290	64.310	8	59.44	168	36.427	7	65.97	60
15	32.524	80	31.84	205	45.48	38	69.16	260	64.302	63	61.12	146	36.434	27	65.37	63
25	32.444	114	33.89	177	45.10	55	71.76	220	64.239	116	62.58	119	36.407	60	64.74	63
35	32.330		35.66		44.55		73.96		64.123		63.77		36.347		64.11	
Mittl. Ort	28.680		35.88		30.20		49.25		57.379		44.45		31.659		55.47	
sec δ, tg δ	1.146		−0.559		4.625		+4.516		1.544		+1.177		1.012		+0.155	
a, a'	+2.5		+13.6		+7.6		+13.4		+4.3		+12.9		+3.2		+12.8	
b, b'	−0.03		− 0.74		+0.20		− 0.74		+0.05		− 0.77		+0.01		− 0.77	

Tag	122) 2 H. Camelop. AR.		Dekl.		125) f Tauri AR.		Dekl.		127) ε Eridani[1]) AR.		Dekl.		131) δ Persei AR.		Dekl.	
1939	3h 24m		+59° 43′		3h 27m		+12° 43′		3h 30m		−9° 39′		3h 38m		+47° 35′	
	s		"		s		"		s		"		s		"	
Jan. 0	10.246	203	57.22	141	31.965	75	43.32	49	4.954	89	55.94	127	37.154	117	45.94	102
10	10.043	261	58.63	100	31.890	106	42.83	50	4.865	118	57.21	106	37.037	165	46.96	73
20	9.782	310	59.63	56	31.784	133	42.33	51	4.747	143	58.27	85	36.872	206	47.69	39
30	9.472	344	60.19	10	31.651	153	41.82	51	4.604	161	59.12	61	36.666	237	48.08	3
Febr. 9	9.128	361	60.29	37	31.498	166	41.31	50	4.443	173	59.73	36	36.429	256	48.11	32
19	8.767	361	59.92	83	31.332	169	40.81	48	4.270	176	60.09	10	36.173	262	47.79	66
März 1	8.406	342	59.09	124	31.163	163	40.33	43	4.094	168	60.19	15	35.911	252	47.13	98
11	8.064	304	57.85	160	31.000	147	39.90	36	3.926	154	60.04	42	35.659	229	46.15	126
21	7.760	251	56.25	190	30.853	121	39.54	28	3.772	130	59.62	67	35.430	193	44.89	147
31	7.509	184	54.35	211	30.732	88	39.26	16	3.642	97	58.95	93	35.237	145	43.42	162
Apr. 10	7.325	107	52.24	224	30.644	49	39.10	1	3.545	59	58.02	117	35.092	89	41.80	171
20	7.218	23	50.00	227	30.595	4	39.09	15	3.486	17	56.85	140	35.003	25	40.09	171
30	7.195	63	47.73	222	30.591	43	39.24	33	3.469	28	55.45	162	34.978	40	38.38	165
Mai 10	7.258	150	45.51	208	30.634	90	39.57	51	3.497	74	53.83	179	35.018	107	36.73	153
20	7.408	233	43.43	189	30.724	135	40.08	70	3.571	118	52.04	194	35.125	171	35.20	134
30	7.641	308	41.54	162	30.859	177	40.78	88	3.689	160	50.10	204	35.296	230	33.86	112
Juni 9	7.949	375	39.92	131	31.036	214	41.66	103	3.849	197	48.06	209	35.526	283	32.74	85
19	8.324	431	38.61	97	31.250	245	42.69	116	4.046	229	45.97	210	35.809	327	31.89	57
29	8.755	476	37.64	60	31.495	270	43.85	127	4.275	255	43.87	203	36.136	364	31.32	27
Juli 9	9.231	509	37.04	21	31.765	288	45.12	132	4.530	273	41.84	192	36.500	391	31.05	2
19	9.740	530	36.83	16	32.053	299	46.44	134	4.803	285	39.92	174	36.891	409	31.07	32
29	10.270	540	36.99	53	32.352	303	47.78	131	5.088	290	38.18	152	37.300	418	31.39	60
Aug. 8	10.810	539	37.52	88	32.655	300	49.09	125	5.378	290	36.66	123	37.718	418	31.99	85
18	11.349	528	38.40	121	32.955	293	50.34	114	5.668	282	35.43	91	38.136	412	32.84	109
28	11.877	508	39.61	152	33.248	280	51.48	101	5.950	269	34.52	57	38.548	399	33.93	129
Sept. 7	12.385	480	41.13	179	33.528	264	52.49	85	6.219	254	33.95	20	38.947	380	35.22	147
17	12.865	446	42.92	202	33.792	245	53.34	67	6.473	233	33.75	16	39.327	355	36.69	161
27	13.311	405	44.94	221	34.037	222	54.01	48	6.706	209	33.91	50	39.682	327	38.30	173
Okt. 7	13.716	358	47.15	237	34.259	198	54.49	31	6.915	184	34.41	83	40.009	295	40.03	181
17	14.074	306	49.52	248	34.457	171	54.80	13	7.099	157	35.24	111	40.304	259	41.84	187
27	14.380	249	52.00	254	34.628	144	54.93	2	7.256	127	36.35	134	40.563	219	43.71	190
Nov. 6	[12] 14.629	187	54.54	255	[13] 34.772	114	54.91	15	[14] 7.383	96	37.69	149	40.782	174	45.61	189
15*)	14.816	120	57.09	250	34.886	83	54.76	25	7.479	65	39.18	159	[16] 40.956	127	47.50	183
25	14.936	50	59.59	238	34.969	49	54.51	33	7.544	31	40.77	162	41.083	75	49.33	175
Dez. 5	14.986	23	61.97	220	35.018	14	54.18	39	7.575	4	42.39	159	41.158	21	51.08	161
15	14.963	96	64.17	196	35.032	21	53.79	44	7.571	37	43.98	150	41.179	33	52.69	143
25	14.867	167	66.13	165	35.011	56	53.35	46	7.534	71	45.48	136	41.146	88	54.12	120
35	14.700		67.78		34.955		52.89		7.463		46.84		41.058		55.32	
Mittl. Ort	6.692		47.14		30.106		43.77		3.328		49.47		34.326		39.18	
sec δ, tg δ	1.984		+1.713		1.025		+0.226		1.014		−0.170		1.483		+1.095	
a, a'	+4.9		+12.6		+3.3		+12.4		+2.9		+12.2		+4.3		+11.6	
b, b'	+0.07		− 0.78		+0.01		− 0.79		−0.01		− 0.79		+0.04		− 0.82	

[1]) Die jährliche Parallaxe (0."310) ist bereits berücksichtigt.

*) Bei Stern 131) lies Nov. 16.

Scheinbare Sternörter 1939

Tag	134) ν Persei AR.		134) ν Persei Dekl.		141) β Reticuli AR.		141) β Reticuli Dekl.		139) η Tauri AR.		139) η Tauri Dekl.		138) 5 H. Camelop. AR.		138) 5 H. Camelop. Dekl.	
1939	$3^h 41^m$		$+42° 23'$		$3^h 43^m$		$-64° 59'$		$3^h 43^m$		$+23° 55'$		$3^h 43^m$		$+71° 8'$	
Jan. 0	5.136	99	20.45	81	27.62	38	72.00	213	53.364	68	5.93	0	58.49	32	58.62	199
10	5.037	143	21.26	55	27.24	43	74.13	162	53.296	105	5.93	10	58.17	42	60.61	156
20	4.894	182	21.81	27	26.81	48	75.75	106	53.191	137	5.83	21	57.75	51	62.17	108
30	4.712	211	22.08	3	26.33	51	76.81	48	53.054	162	5.62	33	57.24	56	63.25	55
Febr. 9	4.501	229	22.05	34	25.82	52	77.29	10	52.892	178	5.29	43	56.68	59	63.80	0
19	4.272	236	21.71	63	25.30	53	77.19	66	52.714	184	4.86	53	56.09	60	63.80	54
März 1	4.036	229	21.08	90	24.77	51	76.53	120	52.530	181	4.33	61	55.49	58	63.26	106
11	3.807	209	20.18	112	24.26	47	75.33	171	52.349	166	3.72	65	54.91	53	62.20	153
21	3.598	175	19.06	130	23.79	43	73.62	216	52.183	140	3.07	67	54.38	45	60.67	194
31	3.423	132	17.76	142	23.36	36	71.46	257	52.043	106	2.40	65	53.93	36	58.73	225
Apr. 10	3.291	81	16.34	147	23.00	30	68.89	291	51.937	65	1.75	58	53.57	24	56.48	249
20	3.210	24	14.87	146	22.70	22	65.98	319	51.872	19	1.17	49	53.33	12	53.99	262
30	3.186	37	13.41	138	22.48	12	62.79	339	51.853	31	0.68	36	53.21	1	51.37	265
Mai 10	3.223	99	12.03	125	22.36	4	59.40	352	51.884	82	0.32	19	53.22	14	48.72	259
20	3.322	157	10.78	107	22.32	5	55.88	357	51.966	130	0.13	1	53.36	27	46.13	246
30	3.479	212	9.71	86	22.37	15	52.31	352	52.096	175	0.12	17	53.63	39	43.67	223
Juni 9	3.691	261	8.85	61	22.52	23	48.79	340	52.271	216	0.29	37	54.02	49	41.44	195
19	3.952	302	8.24	34	22.75	31	45.39	318	52.487	250	0.66	55	54.51	59	39.49	161
29	4.254	336	7.90	7	23.06	38	42.21	288	52.737	279	1.21	70	55.10	67	37.88	123
Juli 9	4.590	361	7.83	19	23.44	45	39.33	249	53.016	299	1.91	85	55.77	73	36.65	83
19	4.951	377	8.02	45	23.89	49	36.84	204	53.315	313	2.76	96	56.50	77	35.82	41
29	5.328	386	8.47	68	24.38	53	34.80	151	53.628	319	3.72	104	57.27	80	35.41	1
Aug. 8	5.714	387	9.15	89	24.91	55	33.29	94	53.947	320	4.76	107	58.07	81	35.42	43
18	6.101	380	10.04	108	25.46	55	32.35	33	54.267	315	5.83	109	58.88	80	35.85	84
28	6.481	369	11.12	124	26.01	54	32.02	30	54.582	304	6.92	107	59.68	79	36.69	124
Sept. 7	6.850	351	12.36	137	26.55	51	32.32	92	54.886	290	7.99	101	60.47	76	37.93	159
17	7.201	329	13.73	147	27.06	47	33.24	153	55.176	272	9.00	95	61.23	71	39.52	193
27	7.530	303	15.20	154	27.53	42	34.77	207	55.448	251	9.95	86	61.94	65	41.45	223
Okt. 7	7.833	275	16.74	159	27.95	35	36.84	256	55.699	227	10.81	77	62.59	59	43.68	248
17	8.108	242	18.33	162	28.30	28	39.40	295	55.926	201	11.58	67	63.18	51	46.16	268
27	8.350	205	19.95	162	28.58	19	42.35	323	56.127	172	12.25	58	63.69	41	48.84	284
Nov. 6	8.555	166	21.57	159	28.77	10	45.58	340	56.299	142	12.83	49	64.10	32	51.68	293
16	17 8.721	123	23.16	153	17 28.87	0	48.98	343	17 56.441	108	13.32	40	17 64.42	21	54.61	295
25	8.844	77	24.69	145	28.87	8	52.41	335	56.549	71	13.72	32	64.63	10	57.56	290
Dez. 5	8.921	28	26.14	133	28.79	17	55.76	314	56.620	33	14.04	25	64.73	2	60.46	276
15	8.949	22	27.47	117	28.62	26	58.90	282	56.653	7	14.29	16	64.71	15	63.22	254
25	8.927	72	28.64	96	28.36	34	61.72	241	56.646	46	14.45	8	64.56	26	65.76	223
35	8.855		29.60		28.02		64.13		56.600		14.53		64.30		67.99	
Mittl. Ort	2.521		14.88		25.65		55.83		51.251		4.55		53.03		48.93	
sec δ, tg δ	1.354		+0.913		2.366		−2.144		1.094		+0.443		3.095		+2.929	
a, *a'*	+4.1		+11.4		+0.7		+11.2		+3.6		+11.2		+6.3		+11.2	
b, *b'*	+0.03		− 0.82		−0.08		− 0.83		+0.02		− 0.83		+0.11		− 0.83	

Tag	140) τ^6 Eridani				143) *g* Eridani				146) γ Hydri				144) ζ Persei			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$3^h\ 44^m$		$-23^\circ 25'$		$3^h\ 47^m$		$-36^\circ 22'$		$3^h\ 48^m$		$-74^\circ 25'$		$3^h\ 50^m$		$+31^\circ 42'$	
Jan. 0	14.957	98	53.22	175	11.901	133	75.06	203	12.35	66	51.96	210	19.865	71	17.24	37
10	14.859	132	54.97	145	11.768	170	77.09	164	11.69	74	54.06	158	19.794	111	17.61	21
20	14.727	160	56.42	111	11.598	199	78.73	121	10.95	81	55.64	101	19.683	146	17.82	3
30	14.567	181	57.53	75	11.399	223	79.94	76	10.14	85	56.65	43	19.537	175	17.85	15
Febr. 9	14.386	195	58.28	38	11.176	237	80.70	29	9.29	88	57.08	16	19.362	193	17.70	35
19	14.191	200	58.66	0	10.939	241	80.99	18	8.41	87	56.92	72	19.169	202	17.35	53
März 1	13.991	196	58.66	37	10.698	236	80.81	64	7.54	84	56.20	126	18.967	197	16.82	69
11	13.795	183	58.29	73	10.462	221	80.17	107	6.70	79	54.94	175	18.770	183	16.13	82
21	13.612	159	57.56	108	10.241	196	79.10	149	5.91	72	53.19	221	18.587	156	15.31	91
31	13.453	128	56.48	141	10.045	162	77.61	186	5.19	63	50.98	261	18.431	120	14.40	96
Apr. 10	13.325	90	55.07	171	9.883	121	75.75	220	4.56	52	48.37	294	18.311	77	13.44	95
20	13.235	47	53.36	198	9.762	74	73.55	249	4.04	40	45.43	321	18.234	27	12.49	90
30	13.188	1	51.38	221	9.688	23	71.06	274	3.64	27	42.22	340	18.207	26	11.59	80
Mai 10	13.187	47	49.17	240	9.665	29	68.32	291	3.37	14	38.82	352	18.233	80	10.79	66
20	13.234	94	46.77	253	9.694	81	65.41	302	3.23	1	35.30	355	18.313	132	10.13	49
30	13.328	139	44.24	261	9.775	133	62.39	307	3.24	15	31.75	351	18.445	180	9.64	30
Juni 9	13.467	180	41.63	262	9.908	179	59.32	303	3.39	28	28.24	336	18.625	224	9.34	9
19	13.647	217	39.01	255	10.087	221	56.29	291	3.67	41	24.88	314	18.849	262	9.25	12
29	13.864	247	36.46	243	10.308	257	53.38	273	4.08	52	21.74	283	19.111	292	9.37	32
Juli 9	14.111	270	34.03	223	10.565	286	50.65	245	4.60	63	18.91	245	19.403	316	9.69	51
19	14.381	288	31.80	197	10.851	308	48.20	211	5.23	71	16.46	198	19.719	331	10.20	68
29	14.669	297	29.83	163	11.159	321	46.09	170	5.94	77	14.48	145	20.050	340	10.88	82
Aug. 8	14.966	301	28.20	125	11.480	328	44.39	123	6.71	81	13.03	88	20.390	341	11.70	94
18	15.267	297	26.95	82	11.808	326	43.16	72	7.52	83	12.15	26	20.731	337	12.64	102
28	15.564	288	26.13	37	12.134	317	42.44	18	8.35	82	11.89	36	21.068	327	13.66	108
Sept. 7	15.852	274	25.76	9	12.451	302	42.26	36	9.17	78	12.25	99	21.395	313	14.74	111
17	16.126	254	25.85	57	12.753	280	42.62	90	9.95	72	13.24	158	21.708	295	15.85	112
27	16.380	231	26.42	101	13.033	254	43.52	141	10.67	63	14.82	214	22.003	274	16.97	111
Okt. 7	16.611	204	27.43	141	13.287	222	44.93	187	11.30	53	16.96	261	22.277	250	18.08	107
17	16.815	175	28.84	176	13.509	187	46.80	225	11.83	40	19.57	299	22.527	222	19.15	103
27	16.990	143	30.60	203	13.696	149	49.05	255	12.23	27	22.56	327	22.749	192	20.18	99
Nov. 6	17.133	109	32.63	222	13.845	108	51.60	275	12.50	12	25.83	342	22.941	159	21.17	94
16	17.242	73	34.85	233	13.953	65	54.35	285	12.62	3	29.25	345	23.100	123	22.11	87
25	[17] 17.315	35	37.18	235	[18] 14.018	20	57.20	284	[18] 12.59	19	32.70	335	[19] 23.223	83	22.98	80
Dez. 5	17.350	3	39.53	227	14.038	24	60.04	272	12.40	33	36.05	313	23.306	40	23.78	71
15	17.347	41	41.80	212	14.014	67	62.76	252	12.07	46	39.18	280	23.346	3	24.49	60
25	17.306	78	43.92	190	13.947	110	65.28	224	11.61	58	41.98	239	23.343	46	25.09	47
35	17.228		45.82		13.837		67.52		11.03		44.37		23.297		25.56	
Mittl. Ort	13.323		43.45		10.263		62.74		9.72		35.34		17.550		14.56	
sec δ, tg δ	1.090		−0.433		1.242		−0.737		3.725		−3.588		1.175		+0.618	
a, a'	+2.6		+11.2		+2.2		+11.0		−0.9		+10.9		+3.8		+10.7	
b, b'	−0.02		− 0.83		−0.03		− 0.84		−0.13		− 0.84		+0.02		− 0.84	

Scheinbare Sternörter 1939

Tag	145) 9 H. Camelop. AR.		Dekl.		147) ε Persei AR.		Dekl.	
1939	$3^h\ 51^m$		$+60°\ 55'$		$3^h\ 53^m$		$+39°\ 50'$	
	s		″		s		″	
Jan. 0	59.02	18	63.82	166	47.801	81	11.46	75
10	58.84	24	65.48	131	47.720	126	12.21	54
20	58.60	30	66.79	89	47.594	166	12.75	29
30	58.30	35	67.68	44	47.428	197	13.04	2
Febr. 9	57.95	37	68.12	3	47.231	218	13.06	25
19	57.58	38	68.09	49	47.013	227	12.81	52
März 1	57.20	38	67.60	94	46.786	223	12.29	76
11	56.82	34	66.66	133	46.563	207	11.53	97
21	56.48	30	65.33	168	46.356	179	10.56	115
31	56.18	24	63.65	195	46.177	138	9.41	125
Apr. 10	55.94	16	61.70	214	46.039	90	8.16	132
20	55.78	8	59.56	224	45.949	36	6.84	131
30	55.70	2	57.32	226	45.913	22	5.53	124
Mai 10	55.72	10	55.06	219	45.935	81	4.29	113
20	55.82	19	52.87	205	46.016	138	3.16	97
30	56.01	27	50.82	185	46.154	191	2.19	78
Juni 9	56.28	34	48.97	159	46.345	241	1.41	55
19	56.62	41	47.38	128	46.586	282	0.86	31
29	57.03	46	46.10	95	46.868	316	0.55	7
Juli 9	57.49	50	45.15	60	47.184	342	0.48	16
19	57.99	54	44.55	24	47.526	360	0.64	39
29	58.53	55	44.31	13	47.886	371	1.03	61
Aug. 8	59.08	56	44.44	49	48.257	373	1.64	79
18	59.64	56	44.93	82	48.630	370	2.43	95
28	60.20	54	45.75	114	49.000	360	3.38	109
Sept. 7	60.74	52	46.89	144	49.360	346	4.47	120
17	61.26	50	48.33	170	49.706	327	5.67	129
27	61.76	46	50.03	193	50.033	305	6.96	134
Okt. 7	62.22	42	51.96	214	50.338	278	8.30	138
17	62.64	37	54.10	229	50.616	248	9.68	141
27	63.01	31	56.39	241	50.864	215	11.09	141
Nov. 6	63.32	25	58.80	247	51.079	177	12.50	139
16	$_{19}$63.57	18	61.27	249	$_{20}$51.256	137	13.89	136
25	63.75	10	63.76	244	51.393	92	15.25	128
Dez. 5	63.85	3	66.20	232	51.485	45	16.53	118
15	63.88	5	68.52	213	51.530	4	17.71	106
25	63.83	13	70.65	187	51.526	54	18.77	90
35	63.70		72.52		51.472		19.67	
Mittl. Ort	55.15		56.11		45.224		7.39	
sec δ, tg δ	2.058		+1.799		1.302		+0.834	
a, a′	+5.1		+10.6		+4.0		+10.5	
b, b′	+0.06		− 0.85		+0.03		− 0.85	

Tag	148) ξ Persei AR.		Dekl.		149) γ Eridani AR.		Dekl.	
1939	$3^h\ 55^m$		$+35°\ 36'$		$3^h\ 55^m$		$-13°\ 40'$	
	s		″		s		″	
Jan. 0	2.537	72	64.91	57	12.652	74	59.19	152
10	2.465	115	65.48	38	12.578	109	60.71	129
20	2.350	153	65.86	17	12.469	137	62.00	104
30	2.197	184	66.03	5	12.332	161	63.04	77
Febr. 9	2.013	203	65.98	28	12.171	177	63.81	48
19	1.810	213	65.70	51	11.994	184	64.29	19
März 1	1.597	210	65.19	70	11.810	183	64.48	11
11	1.387	195	64.49	88	11.627	171	64.37	41
21	1.192	168	63.61	101	11.456	151	63.96	70
31	1.024	130	62.60	109	11.305	121	63.26	98
Apr. 10	0.894	85	61.51	112	11.184	86	62.28	125
20	0.809	35	60.39	109	11.098	45	61.03	150
30	0.774	21	59.30	102	11.053	1	59.53	172
Mai 10	0.795	77	58.28	89	11.052	45	57.81	192
20	0.872	131	57.39	74	11.097	90	55.89	207
30	1.003	182	56.65	54	11.187	134	53.82	217
Juni 9	1.185	229	56.11	33	11.321	173	51.65	223
19	1.414	268	55.78	12	11.494	208	49.42	223
29	1.682	300	55.66	11	11.702	238	47.19	217
Juli 9	1.982	325	55.77	32	11.940	260	45.02	203
19	2.307	343	56.09	52	12.200	276	42.99	184
29	2.650	352	56.61	69	12.476	287	41.15	160
Aug. 8	3.002	356	57.30	84	12.763	291	39.55	130
18	3.358	351	58.14	97	13.054	288	38.25	95
28	3.709	343	59.11	106	13.342	280	37.30	57
Sept. 7	4.052	328	60.17	112	13.622	269	36.73	17
17	4.380	311	61.29	118	13.891	252	36.56	23
27	4.691	290	62.47	120	14.143	232	36.79	62
Okt. 7	4.981	265	63.67	120	14.375	209	37.41	99
17	5.246	237	64.87	120	14.584	184	38.40	130
27	5.483	205	66.07	118	14.768	155	39.70	155
Nov. 6	5.688	171	67.25	114	14.923	124	41.25	175
16	$_{20}$5.859	133	68.39	110	$_{20}$15.047	92	43.00	187
25	5.992	91	69.49	103	15.139	57	44.87	191
Dez. 5	6.083	47	70.52	94	15.196	20	46.78	187
15	6.130	0	71.46	83	15.216	17	48.65	179
25	6.130	47	72.29	68	15.199	53	50.44	162
35	6.083		72.97		15.146		52.06	
Mittl. Ort	0.093		61.76		10.929		51.36	
sec δ, tg δ	1.230		+0.716		1.029		−0.243	
a, a′	+3.9		+10.4		+2.8		+10.4	
b, b′	+0.02		− 0.85		−0.01		− 0.86	

Tag	150) λ Tauri AR.		150) λ Tauri Dekl.		151) ν Tauri AR.		151) ν Tauri Dekl.	
1939	3h 57m		+12° 19′		3h 59m		+5° 49′	
	s		″		s		″	
Jan. 0	19.826	55	7.67	50	56.448	54	13.05	79
10	19.771	91	7.17	50	56.394	90	12.26	72
20	19.680	122	6.67	48	56.304	121	11.54	65
30	19.558	148	6.19	46	56.183	146	10.89	56
Febr. 9	19.410	166	5.73	44	56.037	164	10.33	47
19	19.244	175	5.29	41	55.873	173	9.86	36
März 1	19.069	173	4.88	36	55.700	172	9.50	26
11	18.896	162	4.52	31	55.528	162	9.24	13
21	18.734	141	4.21	22	55.366	141	9.11	1
31	18.593	111	3.99	12	55.225	113	9.12	16
Apr. 10	18.482	74	3.87	0	55.112	77	9.28	32
20	18.408	32	3.87	15	55.035	35	9.60	49
30	18.376	15	4.02	30	55.000	9	10.09	67
Mai 10	18.391	61	4.32	47	55.009	54	10.76	84
20	18.452	107	4.79	64	55.063	100	11.60	101
30	18.559	150	5.43	80	55.163	142	12.61	116
Juni 9	18.709	189	6.23	94	55.305	181	13.77	128
19	18.898	224	7.17	105	55.486	215	15.05	136
29	19.122	251	8.22	115	55.701	243	16.41	142
Juli 9	19.373	273	9.37	120	55.944	265	17.83	143
19	19.646	288	10.57	121	56.209	280	19.26	139
29	19.934	296	11.78	119	56.489	289	20.65	130
Aug. 8	20.230	299	12.97	112	56.778	292	21.95	117
18	20.529	296	14.09	101	57.070	289	23.12	100
28	20.825	288	15.10	88	57.359	283	24.12	81
Sept. 7	21.113	276	15.98	71	57.642	271	24.93	58
17	21.389	261	16.69	54	57.913	256	25.51	34
27	21.650	243	17.23	35	58.169	238	25.85	10
Okt. 7	21.893	221	17.58	17	58.407	218	25.95	13
17	22.114	198	17.75	1	58.625	194	25.82	34
27	22.312	172	17.76	14	58.819	169	25.48	52
Nov. 6	22.484	144	17.62	27	58.988	141	24.96	66
16	22.628	112	17.35	35	59.129	110	24.30	76
25	21 22.740	79	17.00	42	21 59.239	76	23.54	82
Dez. 5	22.819	42	16.58	46	59.315	41	22.72	85
15	22.861	4	16.12	49	59.356	4	21.87	84
25	22.865	34	15.63	49	59.360	34	21.03	81
35	22.831		15.14		59.326		20.22	
Mittl. Ort	17.855		9.70		54.549		16.67	
sec δ, tg δ	1.024		+0.218		1.005		+0.102	
a, a′	+3.3		+10.2		+3.2		+10.0	
b, b′	+0.01		− 0.86		0.00		− 0.87	

Tag	152) c Persei AR.		152) c Persei Dekl.		154) o¹ Eridani AR.		154) o¹ Eridani Dekl.	
1939	4h 4m		+47° 32′		4h 8m		−6° 59′	
	s		″		s		″	
Jan. 0	16.464	89	69.93	116	55.014	58	50.15	134
10	16.375	142	71.09	90	54.956	93	51.49	116
20	16.233	190	71.99	61	54.863	124	52.65	97
30	16.043	227	72.60	28	54.739	150	53.62	75
Febr. 9	15.816	253	72.88	7	54.589	169	54.37	53
19	15.563	265	72.81	41	54.420	179	54.90	29
März 1	15.298	263	72.40	73	54.241	179	55.19	5
11	15.035	246	71.67	103	54.062	171	55.24	18
21	14.789	215	70.64	127	53.891	152	55.06	43
31	14.574	172	69.37	146	53.739	125	54.63	67
Apr. 10	14.402	118	67.91	159	53.614	90	53.96	91
20	14.284	59	66.32	165	53.524	51	53.05	114
30	14.225	6	64.67	163	53.473	8	51.91	134
Mai 10	14.231	72	63.04	156	53.465	38	50.57	153
20	14.303	136	61.48	142	53.503	82	49.04	170
30	14.439	198	60.06	125	53.585	125	47.34	183
Juni 9	14.637	253	58.81	102	53.710	164	45.51	190
19	14.890	302	57.79	78	53.874	200	43.61	194
29	15.192	342	57.01	51	54.074	228	41.67	192
Juli 9	15.534	374	56.50	24	54.302	253	39.75	184
19	15.908	397	56.26	4	54.555	270	37.91	171
29	16.305	411	56.30	30	54.825	280	36.20	152
Aug. 8	16.716	417	56.60	55	55.105	287	34.68	128
18	17.133	417	57.15	78	55.392	285	33.40	99
28	17.550	408	57.93	99	55.677	280	32.41	67
Sept. 7	17.958	395	58.92	117	55.957	270	31.74	33
17	18.353	376	60.09	133	56.227	257	31.41	2
27	18.729	353	61.42	147	56.484	239	31.43	37
Okt. 7	19.082	324	62.89	158	56.723	219	31.80	70
17	19.406	291	64.47	166	56.942	195	32.50	98
27	19.697	254	66.13	173	57.137	170	33.48	123
Nov. 6	19.951	212	67.86	176	57.307	141	34.71	141
16	20.163	165	69.62	175	57.448	110	36.12	153
25	23 20.328	113	71.37	172	24 57.558	76	37.65	159
Dez. 5	20.441	58	73.09	163	57.634	39	39.24	158
15	20.499	1	74.72	149	57.673	2	40.82	153
25	20.500	57	76.21	132	57.675	36	42.35	141
35	20.443		77.53		57.639		43.76	
Mittl. Ort	13.517		65.34		53.196		43.44	
sec δ, tg δ	1.482		+1.093		1.008		−0.123	
a, a′	+4.4		+9.7		+2.9		+9.3	
b, b′	+0.04		−0.88		0.00		−0.88	

Scheinbare Sternörter 1939

Tag	155) α Horologii AR.		155) Dekl.		156) α Reticuli AR.		156) Dekl.		160) υ^4 Eridani AR.		160) Dekl.		162) δ Tauri AR.		162) Dekl.	
1939	$4^h\ 11^m$		−42° 26′		$4^h\ 13^m$		−62° 37′		$4^h\ 15^m$		−33° 56′		$4^h\ 19^m$		+17° 23′	
Jan. 0	60.458	138	51.83	236	40.19	30	49.32	250	36.808	103	58.78	222	26.968	39	61.28	26
10	60.320	182	54.19	195	39.89	36	51.82	203	36.705	144	61.00	187	26.929	78	61.02	28
20	60.138	218	56.14	151	39.53	42	53.85	151	36.561	179	62.87	147	26.851	114	60.74	30
30	59.920	247	57.65	102	39.11	45	55.36	96	36.382	207	64.34	103	26.737	145	60.44	32
Febr. 9	59.673	268	58.67	52	38.66	48	56.32	38	36.175	226	65.37	59	26.592	167	60.12	34
19	59.405	277	59.19	2	38.18	49	56.70	18	35.949	237	65.96	14	26.425	180	59.78	37
März 1	59.128	276	59.21	47	37.69	49	56.52	73	35.712	238	66.10	32	26.245	182	59.41	37
11	58.852	263	58.74	95	37.20	46	55.79	126	35.474	228	65.78	76	26.063	174	59.04	37
21	58.589	240	57.79	140	36.74	43	54.53	175	35.246	207	65.02	117	25.889	156	58.67	35
31	58.349	208	56.39	182	36.31	38	52.78	219	35.039	179	63.85	156	25.733	128	58.32	30
Apr. 10	58.141	167	54.57	220	35.93	32	50.59	258	34.860	141	62.29	192	25.605	92	58.02	23
20	57.974	120	52.37	252	35.61	25	48.01	292	34.719	98	60.37	224	25.513	50	57.79	13
30	57.854	67	49.85	279	35.36	17	45.09	317	34.621	50	58.13	250	25.463	5	57.66	0
Mai 10	57.787	12	47.06	299	35.19	9	41.92	337	34.571	0	55.63	272	25.458	42	57.66	13
20	57.775	45	44.07	314	35.10	1	38.55	349	34.571	52	52.91	287	25.500	90	57.79	27
30	57.820	100	40.93	320	35.09	8	35.06	351	34.623	101	50.04	296	25.590	136	58.06	43
Juni 9	57.920	152	37.73	319	35.17	16	31.55	345	34.724	148	47.08	297	25.726	176	58.49	57
19	58.072	201	34.54	309	35.33	24	28.10	330	34.872	192	44.11	290	25.902	212	59.06	70
29	58.273	243	31.45	290	35.57	32	24.80	307	35.064	229	41.21	276	26.114	243	59.76	82
Juli 9	58.516	279	28.55	264	35.89	37	21.73	274	35.293	261	38.45	254	26.357	268	60.58	89
19	58.795	309	25.91	229	36.26	42	18.99	233	35.554	286	35.91	223	26.625	286	61.47	94
29	59.104	329	23.62	188	36.68	47	16.66	185	35.840	304	33.68	186	26.911	297	62.41	95
Aug. 8	59.433	342	21.74	139	37.15	50	14.81	131	36.144	314	31.82	143	27.208	303	63.36	94
18	59.775	347	20.35	86	37.65	51	13.50	71	36.458	318	30.39	94	27.511	304	64.30	88
28	60.122	344	19.49	29	38.16	50	12.79	9	36.776	315	29.45	42	27.815	299	65.18	79
Sept. 7	60.466	333	19.20	29	38.66	50	12.70	55	37.091	305	29.03	12	28.114	291	65.97	69
17	60.799	314	19.49	86	39.16	47	13.25	117	37.396	291	29.15	66	28.405	278	66.66	56
27	61.113	290	20.35	142	39.63	43	14.42	176	37.687	269	29.81	118	28.683	263	67.22	43
Okt. 7	61.403	260	21.77	193	40.06	37	16.18	230	37.956	243	30.99	166	28.946	245	67.65	29
17	61.663	224	23.70	236	40.43	31	18.48	275	38.199	213	32.65	208	29.191	223	67.94	16
27	61.887	183	26.06	271	40.74	24	21.23	311	38.412	179	34.73	242	29.414	198	68.10	6
Nov. 6	62.070	138	28.77	296	40.98	16	24.34	335	38.591	142	37.15	267	29.612	171	68.16	4
16	62.208	90	31.73	309	41.14	8	27.69	347	38.733	100	39.82	282	29.783	140	68.12	11
25*)	[24] 62.298	41	34.82	312	[25] 41.22	1	31.16	346	[25] 38.833	57	42.64	285	29.923	105	68.01	16
Dez. 5	62.339	10	37.94	303	41.21	9	34.62	333	38.890	12	45.49	280	[26] 30.028	66	67.85	20
15	62.329	61	40.97	285	41.12	18	37.95	309	38.902	33	48.29	264	30.094	27	67.65	22
25	62.268	110	43.82	255	40.94	26	41.04	274	38.869	78	50.93	239	30.121	15	67.43	23
35	62.158		46.37		40.68		43.78		38.791		53.32		30.106		67.20	
Mittl. Ort	58.653		38.78		37.99		34.15		35.026		47.02		24.846		63.39	
sec δ, tg δ	1.355		−0.914		2.175		−1.931		1.205		−0.673		1.048		+0.313	
a, a'	+2.0		+9.1		+0.8		+9.0		+2.3		+8.8		+3.5		+8.5	
b, b'	−0.03		−0.89		−0.06		−0.89		−0.02		−0.90		+0.01		−0.91	

*) Bei Stern 162) lies Nov. 26.

Tag	164) ε Tauri AR.		164) ε Tauri Dekl.		168) α Tauri AR.		168) α Tauri Dekl.	
1939	$4^h\ 25^m$		$+19°\ 2'$		$4^h\ 32^m$		$+16°\ 23'$	
Jan. 0	5.289	34	46.11	17	27.216	29	14.59	31
10	5.255	75	45.94	21	27.187	69	14.28	32
20	5.180	112	45.73	23	27.118	107	13.96	31
30	5.068	144	45.50	26	27.011	139	13.65	32
Febr. 9	4.924	167	45.24	31	26.872	163	13.33	32
19	4.757	182	44.93	34	26.709	179	13.01	34
März 1	4.575	185	44.59	37	26.530	184	12.67	33
11	4.390	178	44.22	39	26.346	178	12.34	31
21	4.212	160	43.83	38	26.168	161	12.03	29
31	4.052	132	43.45	35	26.007	136	11.74	25
Apr. 10	3.920	97	43.10	29	25.871	102	11.49	17
20	3.823	56	42.81	21	25.769	62	11.32	8
30	3.767	10	42.60	10	25.707	16	11.24	4
Mai 10	3.757	38	42.50	2	25.691	30	11.28	17
20	3.795	86	42.52	17	25.721	76	11.45	30
30	3.881	131	42.69	31	25.797	122	11.75	44
Juni 9	4.012	173	43.00	45	25.919	163	12.19	58
19	4.185	210	43.45	59	26.082	200	12.77	69
29	4.395	242	44.04	71	26.282	232	13.46	79
Juli 9	4.637	266	44.75	79	26.514	258	14.25	87
19	4.903	286	45.54	85	26.772	278	15.12	90
29	5.189	298	46.39	88	27.050	290	16.02	90
Aug. 8	5.487	306	47.27	87	27.340	299	16.92	88
18	5.793	306	48.14	83	27.639	301	17.80	81
28	6.099	303	48.97	77	27.940	299	18.61	72
Sept. 7	6.402	295	49.74	67	28.239	292	19.33	59
17	6.697	283	50.41	56	28.531	282	19.92	47
27	6.980	269	50.97	45	28.813	269	20.39	32
Okt. 7	7.249	251	51.42	33	29.082	251	20.71	18
17	7.500	230	51.75	21	29.333	232	20.89	5
27	7.730	206	51.96	12	29.565	209	20.94	6
Nov. 6	7.936	178	52.08	4	29.774	182	20.88	15
16	8.114	147	52.12	3	29.956	152	20.73	23
26	[28] 8.261	112	52.09	7	[30] 30.108	117	20.50	26
Dez. 5	8.373	74	52.02	11	30.225	79	20.24	29
15	8.447	32	51.91	13	30.304	38	19.95	30
25	8.479	10	51.78	14	30.342	4	19.65	30
35	8.469		51.64		30.338		19.35	
Mittl. Ort	3.123		48.23		25.072		17.61	
sec δ, tg δ	1.058		+0.345		1.042		+0.294	
a, a'	+3.5		+8.1		+3.4		+7.5	
b, b'	+0.01		−0.92		+0.01		−0.93	

Tag	171) α Doradus AR.		171) α Doradus Dekl.		169) ν Eridani AR.		169) ν Eridani Dekl.	
1939	$4^h\ 32^m$		$-55°\ 9'$		$4^h\ 33^m$		$-3°\ 28'$	
Jan. 0	42.818	195	87.19	269	18.110	36	39.69	128
10	42.623	252	89.88	226	18.074	75	40.97	112
20	42.371	301	92.14	178	17.999	110	42.09	96
30	42.070	341	93.92	127	17.889	140	43.05	77
Febr. 9	41.729	368	95.19	72	17.749	163	43.82	58
19	41.361	383	95.91	16	17.586	177	44.40	37
März 1	40.978	386	96.07	37	17.409	182	44.77	17
11	40.592	374	95.70	90	17.227	177	44.94	5
21	40.218	349	94.80	140	17.050	161	44.89	26
31	39.869	314	93.40	186	16.889	138	44.63	47
Apr. 10	39.555	267	91.54	228	16.751	106	44.16	68
20	39.288	211	89.26	264	16.645	69	43.48	89
30	39.077	149	86.62	294	16.576	26	42.59	109
Mai 10	38.928	82	83.68	317	16.550	18	41.50	128
20	38.846	13	80.51	334	16.568	62	40.22	144
30	38.833	56	77.17	341	16.630	105	38.78	158
Juni 9	38.889	125	73.76	341	16.735	145	37.20	167
19	39.014	188	70.35	331	16.880	182	35.53	172
29	39.202	248	67.04	313	17.062	212	33.81	173
Juli 9	39.450	300	63.91	285	17.274	239	32.08	169
19	39.750	344	61.06	250	17.513	258	30.39	158
29	40.094	379	58.56	205	17.771	272	28.81	143
Aug. 8	40.473	405	56.51	155	18.043	281	27.38	123
18	40.878	420	54.96	98	18.324	284	26.15	98
28	41.298	424	53.98	38	18.608	282	25.17	68
Sept. 7	41.722	418	53.60	25	18.890	276	24.49	38
17	42.140	401	53.85	88	19.166	266	24.11	6
27	42.541	373	54.73	148	19.432	252	24.05	27
Okt. 7	42.914	337	56.21	204	19.684	236	24.32	57
17	43.251	292	58.25	252	19.920	216	24.89	85
27	43.543	240	60.77	293	20.136	192	25.74	109
Nov. 6	43.783	180	63.70	321	20.328	166	26.83	128
16	43.963	115	66.91	339	20.494	136	28.11	139
26	[30] 44.078	49	70.30	344	[30] 20.630	102	29.50	146
Dez. 5	44.127	21	73.74	337	20.732	65	30.96	147
15	44.106	90	77.11	319	20.797	27	32.43	143
25	44.016	155	80.30	289	20.824	13	33.86	133
35	43.861		83.19		20.811		35.19	
Mittl. Ort	40.690		73.20		16.185		33.03	
sec δ, tg δ	1.751		−1.437		1.002		−0.061	
a, a'	+1.3		+7.5		+3.0		+7.4	
b, b'	−0.04		−0.93		0.00		−0.93	

Scheinbare Sternörter 1939

Tag		172) 53 Eridani AR.		172) 53 Eridani Dekl.		174) τ Tauri AR.		174) τ Tauri Dekl.		173) Grb 848 AR.		173) Grb 848 Dekl.		175) 4 Camelop. AR.		175) 4 Camelop. Dekl.	
1939		$4^h\ 35^m$		$-14^\circ\ 25'$		$4^h\ 38^m$		$+22^\circ\ 50'$		$4^h\ 40^m$		$+75^\circ\ 49'$		$4^h\ 42^m$		$+56^\circ\ 38'$	
Jan.	0	$24^s.991$	47	$28''.24$	175	$37^s.155$	23	$27''.22$	3	$42^s.87$	26	$66''.27$	255	$58^s.469$	69	$66''.47$	176
	10	24.944	86	29.99	153	37.132	68	27.25	1	42.61	43	68.82	222	58.400	141	68.23	153
	20	24.858	122	31.52	127	37.064	107	27.24	7	42.18	56	71.04	182	58.259	208	69.76	123
	30	24.736	151	32.79	98	36.957	142	27.17	12	41.62	68	72.86	133	58.051	264	70.99	87
Febr.	9	24.585	175	33.77	69	36.815	169	27.05	20	40.94	77	74.19	81	57.787	307	71.86	48
	19	24.410	189	34.46	39	36.646	186	26.85	26	40.17	81	75.00	25	57.480	333	72.34	7
März	1	24.221	194	34.85	8	36.460	192	26.59	34	39.36	82	75.25	31	57.147	341	72.41	34
	11	24.027	188	34.93	24	36.268	187	26.25	40	38.54	79	74.94	86	56.806	332	72.07	74
	21	23.839	174	34.69	53	36.081	171	25.85	43	37.75	73	74.08	136	56.474	306	71.33	111
	31	23.665	150	34.16	82	35.910	145	25.42	45	37.02	64	72.72	181	56.168	262	70.22	142
Apr.	10	23.515	118	33.34	111	35.765	109	24.97	43	36.38	52	70.91	218	55.906	206	68.80	167
	20	23.397	81	32.23	137	35.656	68	24.54	38	35.86	37	68.73	246	55.700	139	67.13	186
	30	23.316	38	30.86	161	35.588	23	24.16	31	35.49	21	66.27	265	55.561	65	65.27	196
Mai	10	23.278	6	29.25	182	35.565	26	23.85	21	35.28	4	63.62	275	55.496	12	63.31	199
	20	23.284	51	27.43	199	35.591	75	23.64	9	35.24	12	60.87	275	55.508	91	61.32	196
	30	23.335	95	25.44	212	35.666	121	23.55	5	35.36	28	58.12	267	55.599	166	59.36	186
Juni	9	23.430	136	23.32	219	35.787	165	23.60	18	35.64	44	55.45	251	55.765	237	57.50	171
	19	23.566	174	21.13	222	35.952	204	23.78	32	36.08	59	52.94	229	56.002	302	55.79	150
	29	23.740	207	18.91	217	36.156	237	24.10	44	36.67	71	50.65	201	56.304	358	54.29	127
Juli	9	23.947	234	16.74	207	36.393	264	24.54	54	37.38	82	48.64	167	56.662	405	53.02	100
	19	24.181	256	14.67	189	36.657	285	25.08	63	38.20	91	46.97	130	57.067	443	52.02	72
	29	24.437	271	12.78	167	36.942	300	25.71	68	39.11	98	45.67	91	57.510	471	51.30	42
Aug.	8	24.708	282	11.11	137	37.242	310	26.39	71	40.09	103	44.76	51	57.981	489	50.88	13
	18	24.990	286	9.74	103	37.552	313	27.10	70	41.12	105	44.25	9	58.470	500	50.75	17
	28	25.276	285	8.71	65	37.865	311	27.80	67	42.17	107	44.16	34	58.970	502	50.92	45
Sept.	7	25.561	279	8.06	25	38.176	305	28.47	62	43.24	106	44.50	74	59.472	496	51.37	72
	17	25.840	269	7.81	17	38.481	296	29.09	56	44.30	103	45.24	114	59.968	483	52.09	97
	27	26.109	255	7.98	58	38.777	283	29.65	47	45.33	99	46.38	152	60.451	463	53.06	121
Okt.	7	26.364	238	8.56	97	39.060	267	30.12	39	46.32	92	47.90	187	60.914	436	54.27	144
	17	26.602	216	9.53	132	39.327	248	30.51	32	47.24	84	49.77	219	61.350	404	55.71	163
	27	26.818	191	10.85	162	39.575	224	30.83	25	48.08	74	51.96	247	61.754	362	57.34	181
Nov.	6	27.009	163	12.47	184	39.799	196	31.08	20	48.82	62	54.43	270	62.116	314	59.15	194
	16	27.172	131	14.31	198	39.995	165	31.28	15	49.44	48	57.13	287	62.430	258	61.09	204
	26	27.303	96	16.29	207	40.160	129	31.43	12	49.92	33	60.00	296	62.688	195	63.13	210
Dez.	5	30 27.399	58	18.36	206	1 40.289	90	31.55	11	2 50.25	17	62.96	297	2 62.883	125	65.23	210
	15	27.457	18	20.42	198	40.379	47	31.66	8	50.42	1	65.93	289	63.008	51	67.33	203
	25	27.475	24	22.40	185	40.426	2	31.74	6	50.43	17	68.82	273	63.059	25	69.36	190
	35	27.451		24.25		40.428		31.80		50.26		71.55		63.034		71.26	
Mittl. Ort		23.118		19.64		34.883		29.46		35.32		62.02		54.783		64.17	
sec δ, tg δ		1.033		−0.257		1.085		+0.421		4.086		+3.962		1.819		+1.519	
a, *a'*		+2.8		+7.2		+3.6		+7.0		+8.1		+6.8		+5.0		+6.6	
b, *b'*		−0.01		−0.93		+0.01		−0.94		+0.09		−0.94		+0.03		−0.94	

Tag	178) 9 Camelop. AR.	Δ	178) 9 Camelop. Dekl.	Δ	180) π^5 Orionis AR.	Δ	180) π^5 Orionis Dekl.	Δ
1939	4h 47m		+66° 14′		4h 51m		+2° 20′	
Jan. 0	63.12 s	11	33.64 ″	222	6.362 s	18	25.57 ″	104
10	63.01	22	35.86	194	6.344	59	24.53	94
20	62.79	30	37.80	160	6.285	97	23.59	81
30	62.49	37	39.40	119	6.188	130	22.78	67
Febr. 9	62.12	44	40.59	73	6.058	156	22.11	53
19	61.68	47	41.32	24	5.902	174	21.58	38
März 1	61.21	48	41.56	25	5.728	181	21.20	23
11	60.73	47	41.31	73	5.547	179	20.97	7
21	60.26	44	40.58	118	5.368	167	20.90	8
31	59.82	38	39.40	157	5.201	145	20.98	24
Apr. 10	59.44	30	37.83	189	5.056	115	21.22	41
20	59.14	22	35.94	214	4.941	78	21.63	59
30	58.92	12	33.80	231	4.863	38	22.22	76
Mai 10	58.80	2	31.49	239	4.825	6	22.98	92
20	58.78	9	29.10	239	4.831	50	23.90	107
30	58.87	19	26.71	231	4.881	93	24.97	121
Juni 9	59.06	29	24.40	217	4.974	134	26.18	131
19	59.35	37	22.23	196	5.108	171	27.49	139
29	59.72	45	20.27	172	5.279	203	28.88	142
Juli 9	60.17	52	18.55	142	5.482	229	30.30	140
19	60.69	57	17.13	110	5.711	251	31.70	135
29	61.26	61	16.03	76	5.962	268	33.05	125
Aug. 8	61.87	65	15.27	41	6.230	278	34.30	109
18	62.52	66	14.86	5	6.508	283	35.39	90
28	63.18	67	14.81	30	6.791	284	36.29	67
Sept. 7	63.85	66	15.11	65	7.075	280	36.96	41
17	64.51	65	15.76	98	7.355	274	37.37	14
27	65.16	63	16.74	131	7.629	262	37.51	13
Okt. 7	65.79	59	18.05	160	7.891	249	37.38	39
17	66.38	54	19.65	187	8.140	232	36.99	64
27	66.92	48	21.52	210	8.372	210	36.35	84
Nov. 6	67.40	42	23.62	231	8.582	185	35.51	100
16	67.82	34	25.93	246	8.767	157	34.51	111
26	68.16	25	28.39	254	8.924	124	33.40	118
Dez. 5*)	[4] 68.41	16	30.93	256	[4] 9.048	87	32.22	119
15	68.57	5	33.49	250	9.135	47	31.03	115
25	68.62	5	35.99	237	9.182	7	29.88	109
35	68.57		38.36		9.189		28.79	
Mittl. Ort	58.26		30.89		4.339		31.80	
sec δ, tg δ	2.482		+2.272		1.001		+0.041	
a, *a′*	+6.0		+6.2		+3.1		+5.9	
b, *b′*	+0.05		−0.95		0.00		−0.96	

Tag	181) ι Aurigae AR.	Δ	181) ι Aurigae Dekl.	Δ	183) ε Aurigae AR.	Δ	183) ε Aurigae Dekl.	Δ
1939	4h 53m		+33° 4′		4h 57m		+43° 43′	
Jan. 0	3.637 s	14	15.16 ″	59	38.174 s	18	65.20 ″	118
10	3.623	64	15.75	51	38.156	77	66.38	103
20	3.559	111	16.26	39	38.079	132	67.41	85
30	3.448	151	16.65	25	37.947	178	68.26	62
Febr. 9	3.297	183	16.90	8	37.769	216	68.88	35
19	3.114	204	16.98	10	37.553	240	69.23	7
März 1	2.910	214	16.88	27	37.313	253	69.30	22
11	2.696	210	16.61	44	37.060	249	69.08	50
21	2.486	196	16.17	59	36.811	233	68.58	75
31	2.290	169	15.58	71	36.578	203	67.83	97
Apr. 10	2.121	132	14.87	79	36.375	161	66.86	115
20	1.989	89	14.08	83	36.214	112	65.71	127
30	1.900	40	13.25	83	36.102	57	64.44	133
Mai 10	1.860	12	12.42	78	36.045	4	63.11	135
20	1.872	65	11.64	70	36.049	64	61.76	130
30	1.937	117	10.94	60	36.113	122	60.46	122
Juni 9	2.054	164	10.34	47	36.235	178	59.24	109
19	2.218	208	9.87	33	36.413	229	58.15	94
29	2.426	246	9.54	18	36.642	272	57.21	76
Juli 9	2.672	277	9.36	3	36.914	310	56.45	56
19	2.949	302	9.33	12	37.224	340	55.89	37
29	3.251	321	9.45	23	37.564	363	55.52	18
Aug. 8	3.572	333	9.68	34	37.927	378	55.34	2
18	3.905	339	10.02	44	38.305	387	55.36	20
28	4.244	341	10.46	50	38.692	391	55.56	37
Sept. 7	4.585	338	10.96	55	39.083	388	55.93	52
17	4.923	330	11.51	59	39.471	381	56.45	67
27	5.253	318	12.10	62	39.852	369	57.12	80
Okt. 7	5.571	303	12.72	64	40.221	351	57.92	91
17	5.874	283	13.36	65	40.572	329	58.83	103
27	6.157	260	14.01	67	40.901	301	59.86	113
Nov. 6	6.417	230	14.68	69	41.202	268	60.99	122
16	6.647	197	15.37	70	41.470	228	62.21	128
26	6.844	157	16.07	71	41.698	182	63.49	133
Dez. 5*)	[5] 7.001	114	16.78	71	41.880 [6]	131	64.82	135
15	7.115	66	17.49	70	42.011	74	66.17	132
25	7.181	15	18.19	65	42.085	16	67.49	126
35	7.196		18.84		42.101		68.75	
Mittl. Ort	1.092		16.78		35.246		65.78	
sec δ, tg δ	1.193		+0.651		1.384		+0.957	
a, *a′*	+3.9		+5.8		+4.3		+5.4	
b, *b′*	+0.01		−0.96		+0.02		−0.96	

*) Bei Stern 183) lies Dez. 6.

Scheinbare Sternörter 1939

Tag	182) 10 Camelop. AR.		182) 10 Camelop. Dekl.		184) ι Tauri AR.		184) ι Tauri Dekl.		185) η Aurigae AR.		185) η Aurigae Dekl.		186) ε Leporis AR.		186) ε Leporis Dekl.	
1939	4h 57m		+60° 21′		4h 59m		+21° 30′		5h 2m		+41° 9′		5h 2m		−22° 26′	
	s		″		s		″		s		″		s		″	
Jan. 0	63.07	6	21.55	200	29.163	4	12.55	4	16.847	10	12.85	105	54.649	36	76.12	220
10	63.01	14	23.55	179	29.159	50	12.51	5	16.837	67	13.90	93	54.613	80	78.32	195
20	62.87	22	25.34	148	29.109	93	12.46	6	16.770	120	14.83	77	54.533	120	80.27	164
30	62.65	28	26.82	113	29.016	131	12.40	10	16.650	166	15.60	56	54.413	155	81.91	130
Febr. 9	62.37	34	27.95	72	28.885	161	12.30	14	16.484	203	16.16	33	54.258	183	83.21	94
19	62.03	37	28.67	29	28.724	181	12.16	20	16.281	228	16.49	8	54.075	202	84.15	57
März 1	61.66	39	28.96	15	28.543	192	11.96	24	16.053	241	16.57	19	53.873	211	84.72	20
11	61.27	38	28.81	59	28.351	190	11.72	29	15.812	240	16.38	44	53.662	210	84.92	18
21	60.89	35	28.22	100	28.161	178	11.43	33	15.572	224	15.94	68	53.452	199	84.74	54
31	60.54	31	27.22	135	27.983	155	11.10	34	15.348	196	15.26	87	53.253	179	84.20	90
Apr. 10	60.23	26	25.87	166	27.828	123	10.76	32	15.152	158	14.39	103	53.074	149	83.30	123
20	59.97	19	24.21	188	27.705	84	10.44	30	14.994	111	13.36	114	52.925	115	82.07	155
30	59.78	10	22.33	205	27.621	41	10.14	23	14.883	57	12.22	120	52.810	73	80.52	182
Mai 10	59.68	2	20.28	213	27.580	6	9.91	14	14.826	0	11.02	121	52.737	29	78.70	206
20	59.66	7	18.15	213	27.586	53	9.77	5	14.826	57	9.81	117	52.708	16	76.64	225
30	59.73	15	16.02	208	27.639	100	9.72	7	14.883	114	8.64	108	52.724	62	74.39	241
Juni 9	59.88	23	13.94	195	27.739	144	9.79	19	14.997	167	7.56	97	52.786	106	71.98	249
19	60.11	30	11.99	177	27.883	183	9.98	30	15.164	216	6.59	83	52.892	146	69.49	251
29	60.41	37	10.22	155	28.066	218	10.28	40	15.380	259	5.76	66	53.038	182	66.98	246
Juli 9	60.78	42	8.67	130	28.284	247	10.68	48	15.639	296	5.10	48	53.220	214	64.52	234
19	61.20	47	7.37	102	28.531	270	11.16	55	15.935	325	4.62	31	53.434	241	62.18	215
29	61.67	50	6.35	72	28.801	288	11.71	59	16.260	347	4.31	14	53.675	262	60.03	188
Aug. 8	62.17	53	5.63	41	29.089	300	12.30	59	16.607	363	4.17	4	53.937	278	58.15	156
18	62.70	55	5.22	10	29.389	306	12.89	58	16.970	372	4.21	19	54.215	287	56.59	117
28	63.25	55	5.12	21	29.695	308	13.47	53	17.342	376	4.40	34	54.502	292	55.42	74
Sept. 7	63.80	55	5.33	51	30.003	306	14.00	47	17.718	374	4.74	47	54.794	291	54.68	27
17	64.35	54	5.84	80	30.309	300	14.47	39	18.092	368	5.21	59	55.085	285	54.41	21
27	64.89	53	6.64	108	30.609	290	14.86	30	18.460	357	5.80	69	55.370	274	54.62	69
Okt. 7	65.42	50	7.72	134	30.899	277	15.16	21	18.817	342	6.49	80	55.644	260	55.31	115
17	65.92	46	9.06	158	31.176	261	15.37	13	19.159	321	7.29	88	55.904	241	56.46	156
27	66.38	42	10.64	180	31.437	239	15.50	6	19.480	295	8.17	97	56.145	217	58.02	192
Nov. 6	66.80	37	12.44	198	31.676	214	15.56	2	19.775	263	9.14	105	56.362	188	59.94	220
16	67.17	31	14.42	213	31.890	185	15.58	1	20.038	227	10.19	111	56.550	156	62.14	240
26	67.48	24	16.55	222	32.075	150	15.57	4	20.265	182	11.30	116	56.706	118	64.54	251
Dez. 6	67.72	16	18.77	226	32.225	111	15.53	3	20.447	134	12.46	118	56.824	78	67.05	253
	6				7				7				7			
15	67.88	7	21.03	223	32.336	67	15.50	3	20.581	80	13.64	117	56.902	35	69.58	246
25	67.95	1	23.26	213	32.403	22	15.47	2	20.661	23	14.81	112	56.937	10	72.04	230
35	67.94		25.39		32.425		15.45		20.684		15.93		56.927		74.34	
Mittl. Ort	58.99		20.35		26.869		16.26		14.017		14.14		52.698		66.22	
sec δ, tg δ	2.022		+1.757		1.075		+0.394		1.328		+0.874		1.082		−0.413	
a, *a′*	+5.3		+5.4		+3.6		+5.2		+4.2		+5.0		+2.5		+4.9	
b, *b′*	+0.03		−0.96		+0.01		−0.97		+0.01		−0.97		−0.01		−0.97	

Tag	188) β Eridani AR.		188) β Eridani Dekl.		192) μ Aurigae AR.		192) μ Aurigae Dekl.		194) β Orionis AR.		194) β Orionis Dekl.		193) α Aurigae AR.		193) α Aurigae Dekl.	
1939	$5^h\ 4^m$		$-5°\ 9'$		$5^h\ 9^m$		$+38°\ 24'$		$5^h\ 11^m$		$-8°\ 16'$		$5^h\ 12^m$		$+45°\ 56'$	
Jan. 0	53.010	13	57.74	146	17.804	0	48.76	91	38.316	10	22.88	163	13.821	3	15.42	131
10	52.997	54	59.20	130	17.804	55	49.67	82	38.306	52	24.51	145	13.818	66	16.73	119
20	52.943	94	60.50	111	17.749	107	50.49	69	38.254	93	25.96	125	13.752	124	17.92	102
30	52.849	129	61.61	91	17.642	154	51.18	51	38.161	128	27.21	101	13.628	175	18.94	78
Febr. 9	52.720	156	62.52	69	17.488	191	51.69	32	38.033	157	28.22	77	13.453	218	19.72	52
19	52.564	176	63.21	46	17.297	216	52.01	9	37.876	177	28.99	51	13.235	247	20.24	22
März 1	52.388	186	63.67	24	17.081	231	52.10	14	37.699	188	29.50	26	12.988	263	20.46	8
11	52.202	185	63.91	1	16.850	230	51.96	36	37.511	189	29.76	1	12.725	263	20.38	39
21	52.017	176	63.92	21	16.620	217	51.60	58	37.322	180	29.77	25	12.462	250	19.99	67
31	51.841	156	63.71	44	16.403	193	51.02	75	37.142	162	29.52	50	12.212	221	19.32	92
Apr. 10	51.685	128	63.27	66	16.210	156	50.27	90	36.980	134	20.02	75	11.991	182	18.40	113
20	51.557	93	62.61	88	16.054	112	49.37	100	36.846	101	28.27	98	11.809	133	17.27	130
30	51.464	54	61.73	108	15.942	61	48.37	105	36.745	62	27.29	120	11.676	77	15.97	139
Mai 10	51.410	12	60.65	127	15.881	7	47.32	106	36.683	20	26.09	140	11.599	16	14.58	145
20	51.398	32	59.38	143	15.874	48	46.26	102	36.663	23	24.69	158	11.583	45	13.13	143
30	51.430	75	57.95	157	15.922	103	45.24	94	36.686	67	23.11	172	11.628	107	11.70	138
Juni 9	51.505	115	56.38	168	16.025	155	44.30	84	36.753	107	21.39	181	11.735	164	10.32	128
19	51.620	154	54.70	173	16.180	202	43.46	71	36.860	145	19.58	187	11.899	218	9.04	114
29	51.774	187	52.97	174	16.382	244	42.75	56	37.005	180	17.71	187	12.117	264	7.90	99
Juli 9	51.961	215	51.23	169	16.626	279	42.19	41	37.185	209	15.84	181	12.381	306	6.91	80
19	52.176	238	49.54	159	16.905	308	41.78	25	37.394	233	14.03	171	12.687	339	6.11	61
29	52.414	257	47.95	144	17.213	331	41.53	10	37.627	253	12.32	153	13.026	365	5.50	41
Aug. 8	52.671	270	46.51	123	17.544	347	41.43	4	37.880	267	10.79	130	13.391	385	5.09	22
18	52.941	277	45.28	98	17.891	357	41.47	17	38.147	276	9.49	102	13.776	397	4.87	2
28	53.218	281	44.30	68	18.248	362	41.64	29	38.423	280	8.47	71	14.173	403	4.85	16
Sept. 7	53.499	280	43.62	36	18.610	361	41.93	39	38.703	280	7.76	35	14.576	404	5.01	33
17	53.779	274	43.26	2	18.971	356	42.32	48	38.983	276	7.41	2	14.980	400	5.34	51
27	54.053	266	43.24	33	19.327	347	42.80	57	39.259	269	7.43	39	15.380	389	5.85	66
Okt. 7	54.319	253	43.57	66	19.674	334	43.37	65	39.528	257	7.82	75	15.769	375	6.51	80
17	54.572	237	44.23	96	20.008	315	44.02	72	39.785	241	8.57	107	16.144	354	7.31	95
27	54.809	217	45.19	121	20.323	291	44.74	79	40.026	222	9.64	135	16.498	327	8.26	108
Nov. 6	55.026	193	46.40	143	20.614	262	45.53	86	40.248	197	10.99	158	16.825	294	9.34	120
16	55.219	164	47.83	156	20.876	227	46.39	91	40.445	169	12.57	174	17.119	254	10.54	130
26	55.383	132	49.39	165	21.103	185	47.30	96	40.614	136	14.31	183	17.373	208	11.84	137
Dez. 6	55.515	94	51.04	166	21.288	139	48.26	100	40.750	99	16.14	185	17.581	154	13.21	143
15	8 55.609	54	52.70	162	9 21.427	87	49.26	100	10 40.849	58	17.99	181	10 17.735	95	14.64	143
25	55.663	13	54.32	152	21.514	33	50.26	97	40.907	15	19.80	170	17.830	34	16.07	138
35	55.676		55.84		21.547		51.23		40.922		21.50		17.864		17.45	
Mittl. Ort	51.008		50.03		15.064		50.94		36.313		14.64		10.767		17.01	
sec δ, tg δ	1.004		−0.090		1.276		+0.793		1.011		−0.145		1.438		+1.033	
a, *a'*	+3.0		+4.8		+4.1		+4.4		+2.9		+4.2		+4.4		+4.2	
b, *b'*	0.00		−0.97		+0.01		−0.98		0.00		−0.98		+0.01		−0.98	

Scheinbare Sternörter 1939

Tag	191) 19 H. Camelop. AR.		Dekl.		196) ϑ Doradus AR.		Dekl.		201) γ Orionis AR.		Dekl.		202) β Tauri AR.		Dekl.	
1939	5h 12m		+79° 9′		5h 13m		−67° 14′		5h 21m		+6° 17′		5h 22m		+28° 33′	
	s		″		s		″		s		″		s		″	
Jan. 0	37.59	23	58.11	282	51.01	27	87.13	310	53.629	10	38.25	92	28.539	17	23.59	36
10	37.36	44	60.93	256	50.74	36	90.23	274	53.639	33	37.33	80	28.556	33	23.95	34
20	36.92	65	63.49	222	50.38	44	92.97	229	53.606	76	36.53	70	28.523	82	24.29	30
30	36.27	82	65.71	178	49.94	51	95.26	179	53.530	114	35.83	59	28.441	125	24.59	22
Febr. 9	35.45	95	67.49	127	49.43	56	97.05	126	53.416	145	35.24	46	28.316	161	24.81	13
19	34.50	104	68.76	73	48.87	60	98.31	71	53.271	168	34.78	35	28.155	187	24.94	2
März 1	33.46	109	69.49	14	48.27	61	99.02	14	53.103	181	34.43	24	27.968	203	24.96	10
11	32.37	108	69.63	43	47.66	61	99.16	40	52.922	184	34.19	12	27.765	205	24.86	23
21	31.29	103	69.20	98	47.05	58	98.76	94	52.738	176	34.07	0	27.560	196	24.63	34
31	30.26	93	68.22	148	46.47	55	97.82	144	52.562	158	34.07	11	27.364	176	24.29	44
Apr. 10	29.33	80	66.74	193	45.92	50	96.38	190	52.404	132	34.18	24	27.188	147	23.85	50
20	28.53	63	64.81	229	45.42	43	94.48	232	52.272	99	34.42	38	27.041	108	23.35	55
30	27.90	44	62.52	256	44.99	35	92.16	269	52.173	61	34.80	51	26.933	64	22.80	55
Mai 10	27.46	23	59.96	275	44.64	26	89.47	298	52.112	18	35.31	65	26.869	16	22.25	53
20	27.23	2	57.21	284	44.38	17	86.49	321	52.094	25	35.96	78	26.853	33	21.72	47
30	27.21	19	54.37	285	44.21	7	83.28	336	52.119	68	36.74	90	26.886	82	21.25	41
Juni 9	27.40	40	51.52	277	44.14	3	79.92	343	52.187	109	37.64	100	26.968	128	20.84	31
19	27.80	59	48.75	261	44.17	12	76.49	341	52.296	147	38.64	108	27.096	171	20.53	21
29	28.39	77	46.14	239	44.29	22	73.08	329	52.443	181	39.72	112	27.267	209	20.32	10
Juli 9	29.16	93	43.75	211	44.51	31	69.79	308	52.624	211	40.84	113	27.476	242	20.22	1
19	30.09	107	41.64	179	44.82	39	66.71	278	52.835	235	41.97	110	27.718	269	20.21	9
29	31.16	118	39.85	142	45.21	45	63.93	238	53.070	254	43.07	102	27.987	291	20.30	16
Aug. 8	32.34	127	38.43	103	45.66	51	61.55	191	53.324	269	44.09	91	28.278	307	20.46	22
18	33.61	133	37.40	62	46.17	56	59.64	138	53.593	278	45.00	75	28.585	317	20.68	26
28	34.94	137	36.78	20	46.73	59	58.26	77	53.871	283	45.75	56	28.902	323	20.94	27
Sept. 7	36.31	139	36.58	23	47.32	59	57.49	14	54.154	285	46.31	35	29.225	325	21.21	28
17	37.70	137	36.81	66	47.91	59	57.35	51	54.439	283	46.66	11	29.550	322	21.49	28
27	39.07	134	37.47	107	48.50	57	57.86	115	54.722	276	46.77	12	29.872	316	21.77	27
Okt. 7	40.41	127	38.54	148	49.07	52	59.01	177	54.998	267	46.65	36	30.188	306	22.04	25
17	41.68	119	40.02	185	49.59	47	60.78	232	55.265	254	46.29	57	30.494	292	22.29	24
27	42.87	107	41.87	220	50.06	40	63.10	279	55.519	237	45.72	74	30.786	273	22.53	24
Nov. 6	43.94	92	44.07	250	50.46	31	65.89	318	55.756	215	44.98	89	31.059	248	22.77	26
16	44.86	76	46.57	275	50.77	22	69.07	344	55.971	188	44.09	99	31.307	219	23.03	27
26	45.62	57	49.32	293	50.99	12	72.51	358	56.159	156	43.10	104	31.526	183	23.30	31
Dez. 6	46.19	36	52.25	303	51.11	1	76.09	360	56.315	120	42.06	104	31.709	142	23.61	34
	10				10				12				12			
15	46.55	14	55.28	304	51.12	10	79.69	349	56.435	80	41.02	101	31.851	96	23.95	36
25	46.69	9	58.32	295	51.02	20	83.18	327	56.515	36	40.01	94	31.947	47	24.31	39
35	46.60		61.27		50.82		86.45		56.551		39.07		31.994		24.70	
Mittl. Ort	27.80		57.13		47.94		74.14		51.503		45.01		26.063		27.87	
sec δ, tg δ	5.320		+5.225		2.586		−2.385		1.006		+0.110		1.138		+0.544	
a, *a′*	+9.9		+4.1		0.0		+4.0		+3.2		+3.3		+3.8		+3.3	
b, *b′*	+0.07		−0.98		−0.03		−0.98		0.00		−0.99		+0.01		−0.99	

Tag	203) 17 Camelop. AR.	Δ	203) 17 Camelop. Dekl.	Δ	206) δ Orionis AR.	Δ	206) δ Orionis Dekl.	Δ	207) α Leporis AR.	Δ	207) α Leporis Dekl.	Δ	205) Grb 966 AR.	Δ	205) Grb 966 Dekl.	Δ
1939	5h 24m		+63° 0′		5h 28m		−0° 20′		5h 30m		−17° 51′		5h 31m		+75° 0′	
	s		″		s		″		s		″		s		″	
Jan. 0	28.59	2	67.24	221	55.430	12	41.87	129	4.371	4	62.33	215	40.71	8	24.89	273
10	28.57	11	69.45	204	55.442	32	43.16	115	4.367	51	64.48	193	40.63	23	27.62	254
20	28.46	21	71.49	179	55.410	74	44.31	99	4.316	93	66.41	167	40.40	39	30.16	225
30	28.25	28	73.28	145	55.336	112	45.30	82	4.223	132	68.08	136	40.01	54	32.41	187
Febr. 9	27.97	35	74.73	107	55.224	144	46.12	64	4.091	163	69.44	105	39.47	64	34.28	141
19	27.62	40	75.80	64	55.080	168	46.76	46	3.928	186	70.49	72	38.83	72	35.69	91
März 1	27.22	42	76.44	18	54.912	182	47.22	28	3.742	201	71.21	38	38.11	77	36.60	38
11	26.80	42	76.62	27	54.730	185	47.50	9	3.541	204	71.59	3	37.34	78	36.98	18
21	26.38	41	76.35	72	54.545	179	47.59	8	3.337	198	71.62	30	36.56	75	36.80	72
31	25.97	37	75.63	113	54.366	163	47.51	27	3.139	182	71.32	63	35.81	69	36.08	121
Apr. 10	25.60	31	74.50	149	54.203	138	47.24	44	2.957	157	70.69	94	35.12	61	34.87	166
20	25.29	25	73.01	178	54.065	106	46.80	63	2.800	125	69.75	124	34.51	49	33.21	204
30	25.04	17	71.23	201	53.959	68	46.17	80	2.675	88	68.51	151	34.02	36	31.17	233
Mai 10	24.87	8	69.22	215	53.891	28	45.37	97	2.587	46	67.00	174	33.66	21	28.84	255
20	24.79	2	67.07	223	53.863	14	44.40	112	2.541	3	65.26	196	33.45	6	26.29	268
30	24.81	10	64.84	224	53.877	57	43.28	125	2.538	40	63.30	211	33.39	9	23.61	272
Juni 9	24.91	19	62.60	217	53.934	98	42.03	135	2.578	82	61.19	222	33.48	25	20.89	269
19	25.10	27	60.43	205	54.032	135	40.68	142	2.660	123	58.97	228	33.73	39	18.20	257
29	25.37	35	58.38	187	54.167	170	39.26	144	2.783	159	56.69	226	34.12	53	15.63	240
Juli 9	25.72	41	56.51	166	54.337	200	37.82	143	2.942	192	54.43	218	34.65	64	13.23	217
19	26.13	47	54.85	140	54.537	225	36.39	136	3.134	219	52.25	204	35.29	75	11.06	189
29	26.60	52	53.45	113	54.762	245	35.03	125	3.353	243	50.21	182	36.04	84	9.17	157
Aug. 8	27.12	55	52.32	83	55.007	261	33.78	108	3.596	261	48.39	154	36.88	92	7.60	122
18	27.67	58	51.49	51	55.268	272	32.70	87	3.857	274	46.85	120	37.80	96	6.38	84
28	28.25	59	50.98	20	55.540	278	31.83	62	4.131	281	45.65	81	38.76	100	5.54	46
Sept. 7	28.84	60	50.78	11	55.818	281	31.21	35	4.412	286	44.84	38	39.76	102	5.08	6
17	29.44	60	50.89	43	56.099	279	30.86	5	4.698	284	44.46	6	40.78	102	5.02	34
27	30.04	59	51.32	74	56.378	275	30.81	26	4.982	280	44.52	52	41.80	101	5.36	75
Okt. 7	30.63	57	52.06	104	56.653	266	31.07	55	5.262	269	45.04	96	42.81	97	6.11	113
17	31.20	53	53.10	133	56.919	253	31.62	81	5.531	255	46.00	136	43.78	92	7.24	150
27	31.73	50	54.43	160	57.172	237	32.43	105	5.786	236	47.36	171	44.70	84	8.74	186
Nov. 6	32.23	44	56.03	184	57.409	216	33.48	123	6.022	212	49.07	200	45.54	75	10.60	218
16	32.67	38	57.87	205	57.625	189	34.71	137	6.234	183	51.07	222	46.29	64	12.78	244
26	33.05	31	59.92	220	57.814	157	36.08	144	6.417	148	53.29	235	46.93	50	15.22	266
Dez. 6	33.36	23	62.12	231	57.971	122	37.52	146	6.565	110	55.64	239	47.43	36	17.88	280
15	[13] 33.59	13	64.43	234	[14] 58.093	81	38.98	141	[14] 6.675	67	58.03	235	[15] 47.79	20	20.68	286
25	33.72	4	66.77	230	58.174	38	40.39	134	6.742	22	60.38	223	47.99	3	23.54	283
35	33.76		69.07		58.212		41.73		6.764		62.61		48.02		26.37	
Mittl. Ort	24.15		68.50		53.347		34.17		2.347		52.93		33.39		26.20	
sec δ, tg δ	2.204		+1.964		1.000		−0.006		1.051		−0.322		3.866		+3.734	
a, a′	+5.7		+3.1		+3.1		+2.7		+2.6		+2.6		+8.0		+2.5	
b, b′	+0.02		−0.99		0.00		−0.99		0.00		−0.99		+0.03		−0.99	

Scheinbare Sternörter 1939

Tag	209) ι Orionis AR.	Δ	209) ι Orionis Dekl.	Δ	212) β Doradus AR.	Δ	212) β Doradus Dekl.	Δ	210) ε Orionis AR.	Δ	210) ε Orionis Dekl.	Δ	211) ζ Tauri AR.	Δ	211) ζ Tauri Dekl.	Δ
1939	$5^h\ 32^m$		$-5°\ 56'$		$5^h\ 33^m$		$-62°\ 31'$		$5^h\ 33^m$		$-1°\ 14'$		$5^h\ 33^m$		$+21°\ 6'$	
Jan. 0	$28\overset{s}{.}981$	11	$63\overset{''}{.}37$	159	$8\overset{s}{.}45$	17	$58\overset{''}{.}32$	327	$9\overset{s}{.}122$	16	$29\overset{''}{.}91$	135	$62\overset{s}{.}231$	28	$19\overset{''}{.}48$	8
10	28.992	34	64.96	143	8.28	25	61.59	294	9.138	29	31.26	120	62.259	21	19.40	5
20	28.958	76	66.39	123	8.03	33	64.53	253	9.109	72	32.46	104	62.238	68	19.35	2
30	28.882	115	67.62	102	7.70	39	67.06	206	9.037	111	33.50	86	62.170	110	19.33	2
Febr. 9	28.767	146	68.64	79	7.31	44	69.12	155	8.926	143	34.36	68	62.060	145	19.31	3
19	28.621	171	69.43	56	6.87	48	70.67	102	8.783	166	35.04	48	61.915	173	19.28	7
März 1	28.450	184	69.99	32	6.39	50	71.69	46	8.617	182	35.52	29	61.742	189	19.21	10
11	28.266	189	70.31	9	5.89	50	72.15	9	8.435	186	35.81	10	61.553	194	19.11	15
21	28.077	183	70.40	15	5.39	49	72.06	63	8.249	180	35.91	9	61.359	187	18.96	18
31	27.894	168	70.25	38	4.90	47	71.43	114	8.069	165	35.82	28	61.172	171	18.78	21
Apr. 10	27.726	143	69.87	60	4.43	42	70.29	163	7.904	140	35.54	46	61.001	144	18.57	22
20	27.583	112	69.27	83	4.01	37	68.66	206	7.764	109	35.08	65	60.857	110	18.35	21
30	27.471	76	68.44	103	3.64	31	66.60	247	7.655	72	34.43	83	60.747	70	18.14	18
Mai 10	27.395	35	67.41	122	3.33	24	64.13	280	7.583	32	33.60	101	60.677	25	17.96	13
20	27.360	7	66.19	139	3.09	16	61.33	306	7.551	10	32.59	115	60.652	20	17.83	6
30	27.367	49	64.80	153	2.93	8	58.27	325	7.561	52	31.44	128	60.672	66	17.77	2
Juni 9	27.416	90	63.27	164	2.85	1	55.02	337	7.613	93	30.16	139	60.738	110	17.79	10
19	27.506	129	61.63	170	2.86	8	51.65	339	7.706	131	28.77	146	60.848	150	17.89	19
29	27.635	163	59.93	172	2.94	17	48.26	332	7.837	166	27.31	148	60.998	187	18.08	26
Juli 9	27.798	193	58.21	168	3.11	24	44.94	316	8.003	196	25.83	145	61.185	219	18.34	32
19	27.991	220	56.53	159	3.35	31	41.78	290	8.199	221	24.38	139	61.404	245	18.66	37
29	28.211	241	54.94	143	3.66	37	38.88	254	8.420	242	22.99	128	61.649	267	19.03	39
Aug. 8	28.452	257	53.51	124	4.03	42	36.34	210	8.662	259	21.71	110	61.916	283	19.42	38
18	28.709	269	52.27	98	4.45	47	34.24	160	8.921	270	20.61	88	62.199	295	19.80	35
28	28.978	276	51.29	69	4.92	49	32.64	101	9.191	277	19.73	63	62.494	303	20.15	30
Sept. 7	29.254	280	50.60	36	5.41	50	31.63	39	9.468	280	19.10	34	62.797	305	20.45	23
17	29.534	279	50.24	1	5.91	51	31.24	25	9.748	279	18.76	4	63.102	305	20.68	15
27	29.813	275	50.23	34	6.42	50	31.49	91	10.027	276	18.72	28	63.407	301	20.83	6
Okt. 7	30.088	266	50.57	68	6.92	47	32.40	154	10.303	267	19.00	57	63.708	293	20.89	2
17	30.354	254	51.25	100	7.39	43	33.94	212	10.570	256	19.57	85	64.001	282	20.87	10
27	30.608	237	52.25	129	7.82	38	36.06	263	10.826	239	20.42	110	64.283	265	20.77	16
Nov. 6	30.845	215	53.54	150	8.20	31	38.69	305	11.065	218	21.52	128	64.548	243	20.61	19
16	31.060	189	55.04	165	8.51	24	41.74	337	11.283	192	22.80	143	64.791	217	20.42	21
26	31.249	157	56.69	175	8.75	16	45.11	355	11.475	161	24.23	150	65.008	184	20.21	19
Dez. 6	31.406	121	58.44	179	8.91	7	48.66	363	11.636	125	25.73	152	65.192	146	20.02	16
15	^{15}31.527	80	60.23	175	^{15}8.98	3	52.29	358	^{15}11.761	85	27.25	148	^{15}65.338	103	19.86	13
25	31.607	37	61.98	165	8.95	11	55.87	340	11.846	41	28.73	140	65.441	56	19.73	8
35	31.644		63.63		8.84		59.27		11.887		30.13		65.497		19.65	
Mittl. Ort	26.924		55.04		5.58		46.41		7.039		22.01		59.893		25.24	
sec δ, tg δ	1.005		−0.104		2.168		−1.923		1.000		−0.022		1.072		+0.386	
a, a'	+2.9		+2.4		+0.5		+2.3		+3.0		+2.3		+3.6		+2.3	
b, b'	0.00		−0.99		−0.02		−0.99		0.00		−0.99		0.00		−0.99	

Tag	215) α Columbae AR.		215) α Columbae Dekl.		216) ο Aurigae AR.		216) ο Aurigae Dekl.		219) ζ Leporis AR.		219) ζ Leporis Dekl.		220) κ Orionis AR.		220) κ Orionis Dekl.	
1939	$5^h\ 37^m$		−34° 6′		$5^h\ 41^m$		+49° 47′		$5^h\ 44^m$		−14° 50′		$5^h\ 44^m$		−9° 41′	
Jan. 0	28.448	27	31.29	280	13.673	33	62.49	158	13.506	12	45.32	208	53.845	19	32.55	183
10	28.421	77	34.09	253	13.706	38	64.07	150	13.518	34	47.40	187	53.864	27	34.38	165
20	28.344	126	36.62	220	13.668	105	65.57	135	13.484	78	49.27	164	53.837	71	36.03	143
30	28.218	168	38.82	182	13.563	166	66.92	114	13.406	118	50.91	136	53.766	111	37.46	119
Febr. 9	28.050	202	40.64	139	13.397	218	68.06	88	13.288	152	52.27	106	53.655	145	38.65	93
19	27.848	229	42.03	96	13.179	256	68.94	57	13.136	177	53.33	75	53.510	170	39.58	67
März 1	27.619	245	42.99	50	12.923	281	69.51	25	12.959	194	54.08	44	53.340	187	40.25	40
11	27.374	249	43.49	4	12.642	289	69.76	9	12.765	199	54.52	12	53.153	192	40.65	12
21	27.125	244	43.53	40	12.353	282	69.67	42	12.566	196	54.64	19	52.961	189	40.77	14
31	26.881	227	43.13	83	12.071	260	69.25	74	12.370	182	54.45	49	52.772	175	40.63	41
Apr. 10	26.654	202	42.30	124	11.811	223	68.51	100	12.188	159	53.96	79	52.597	153	40.22	66
20	26.452	169	41.06	162	11.588	177	67.51	124	12.029	129	53.17	107	52.444	123	39.56	91
30	26.283	129	39.44	197	11.411	121	66.27	141	11.900	94	52.10	133	52.321	88	38.65	113
Mai 10	26.154	84	37.47	227	11.290	59	64.86	154	11.806	54	50.77	156	52.233	49	37.52	135
20	26.070	37	35.20	252	11.231	4	63.32	159	11.752	12	49.21	177	52.184	7	36.17	153
30	26.033	11	32.68	270	11.235	69	61.73	160	11.740	31	47.44	192	52.177	35	34.64	168
Juni 9	26.044	59	29.98	283	11.304	132	60.13	156	11.771	72	45.52	204	52.212	76	32.96	179
19	26.103	105	27.15	288	11.436	190	58.57	148	11.843	111	43.48	211	52.288	115	31.17	185
29	26.208	147	24.27	284	11.626	243	57.09	135	11.954	148	41.37	211	52.403	150	29.32	187
Juli 9	26.355	187	21.43	272	11.869	291	55.74	120	12.102	180	39.26	205	52.553	181	27.45	183
19	26.542	222	18.71	253	12.160	331	54.54	103	12.282	209	37.21	193	52.734	209	25.62	172
29	26.764	251	16.18	225	12.491	365	53.51	84	12.491	232	35.28	174	52.943	232	23.90	156
Aug. 8	27.015	275	13.93	189	12.856	391	52.67	65	12.723	252	33.54	148	53.175	250	22.34	134
18	27.290	294	12.04	146	13.247	411	52.02	45	12.975	267	32.06	117	53.425	265	21.00	107
28	27.584	306	10.58	98	13.658	425	51.57	24	13.242	275	30.89	81	53.690	274	19.93	74
Sept. 7	27.890	314	9.60	45	14.083	431	51.33	3	13.517	281	30.08	42	53.964	279	19.19	38
17	28.204	314	9.15	11	14.514	434	51.30	17	13.798	283	29.66	1	54.243	280	18.81	1
27	28.518	308	9.26	68	14.948	429	51.47	36	14.081	281	29.67	45	54.523	278	18.80	38
Okt. 7	28.826	298	9.94	122	15.377	419	51.83	56	14.362	273	30.12	86	54.801	272	19.18	77
17	29.124	281	11.16	172	15.796	402	52.39	76	14.635	262	30.98	125	55.073	260	19.95	111
27	29.405	258	12.88	218	16.198	379	53.15	95	14.897	245	32.23	160	55.333	245	21.06	142
Nov. 6	29.663	228	15.06	254	16.577	348	54.10	113	15.142	223	33.83	188	55.578	224	22.48	168
16	29.891	192	17.60	283	16.925	308	55.23	129	15.365	196	35.71	210	55.802	198	24.16	186
26	30.083	152	20.43	300	17.233	260	56.52	143	15.561	163	37.81	222	56.000	167	26.02	198
Dez. 6	30.235	105	23.43	307	17.493	204	57.95	155	15.724	126	40.03	228	56.167	130	28.00	201
16	30.340	56	26.50	304	17.697	141	59.50	161	15.850	85	42.31	225	56.297	89	30.01	199
25	30.396	5	29.54	291	17.838	74	61.11	163	15.935	38	44.56	214	56.386	45	32.00	189
35	30.401		32.45		17.912		62.74		15.973		46.70		56.431		33.89	
Mittl. Ort	26.335		20.77		10.398		66.33		11.451		36.15		51.780		23.75	
sec δ, tg δ	1.208		−0.677		1.549		+1.183		1.035		−0.265		1.014		−0.171	
a, a′	+2.2		+2.0		+4.6		+1.6		+2.7		+1.4		+2.8		+1.3	
b, b′	0.00		−1.00		+0.01		−1.00		0.00		−1.00		0.00		−1.00	

Scheinbare Sternörter 1939

Tag	224) α Orionis				225) δ Aurigae				227) β Aurigae				228) ϑ Aurigae			
	AR.	Diff.	Dekl.	Diff.	AR.	Diff.	Dekl.	Diff.	AR.	Diff.	Dekl.	Diff.	AR.	Diff.	Dekl.	Diff.
1939	$5^h\ 51^m$		+7° 23′		$5^h\ 54^m$		+54° 16′		$5^h\ 55^m$		+44° 56′		$5^h\ 55^m$		+37° 12′	
	s		″		s		″		s		″		s		″	
Jan. 0	54.307	39	42.73	91	33.817	50	52.17	183	6.294	53	30.49	132	36.440	54	30.80	87
10	54.346	8	41.82	81	33.867	28	54.00	175	6.347	12	31.81	129	36.494	5	31.67	87
20	54.338	54	41.01	68	33.839	104	55.75	161	6.335	76	33.10	119	36.489	62	32.54	81
30	54.284	95	40.33	56	33.735	173	57.36	140	6.259	134	34.29	104	36.427	114	33.35	72
Febr. 9	54.189	131	39.77	44	33.562	233	58.76	113	6.125	184	35.33	84	36.313	159	34.07	58
19	54.058	159	39.33	32	33.329	279	59.89	80	5.941	224	36.17	59	36.154	195	34.65	41
März 1	53.899	176	39.01	22	33.050	310	60.69	43	5.717	250	36.76	32	35.959	219	35.06	22
11	53.723	185	38.79	11	32.740	322	61.12	6	5.467	261	37.08	4	35.740	229	35.28	0
21	53.538	182	38.68	1	32.418	319	61.18	32	5.206	257	37.12	25	35.511	225	35.28	20
31	53.356	168	38.67	10	32.099	297	60.86	67	4.949	240	36.87	53	35.286	211	35.08	40
Apr. 10	53.188	147	38.77	21	31.802	262	60.19	100	4.709	210	36.34	77	35.075	183	34.68	58
20	53.041	117	38.98	32	31.540	213	59.19	128	4.499	170	35.57	98	34.892	148	34.10	72
30	52.924	82	39.30	43	31.327	155	57.91	151	4.329	120	34.59	115	34.744	103	33.38	83
Mai 10	52.842	42	39.73	55	31.172	90	56.40	168	4.209	66	33.44	126	34.641	54	32.55	90
20	52.800	0	40.28	66	31.082	21	54.72	178	4.143	9	32.18	133	34.587	3	31.65	93
30	52.800	42	40.94	77	31.061	49	52.94	183	4.134	51	30.85	134	34.584	50	30.72	93
Juni 9	52.842	82	41.71	86	31.110	118	51.11	182	4.185	107	29.51	133	34.634	100	29.79	90
19	52.924	121	42.57	92	31.228	183	49.29	176	4.292	160	28.18	127	34.734	148	28.89	83
29	53.045	157	43.49	97	31.411	243	47.53	166	4.452	211	26.91	117	34.882	192	28.06	75
Juli 9	53.202	187	44.46	97	31.654	297	45.87	152	4.663	254	25.74	106	35.074	231	27.31	66
19	53.389	215	45.43	94	31.951	344	44.35	135	4.917	292	24.68	92	35.305	265	26.65	56
29	53.604	236	46.37	88	32.295	384	43.00	115	5.209	325	23.76	78	35.570	292	26.09	46
Aug. 8	53.840	255	47.25	77	32.679	416	41.85	94	5.534	350	22.98	63	35.862	316	25.63	36
18	54.095	268	48.02	63	33.095	441	40.91	72	5.884	370	22.35	48	36.178	332	25.27	26
28	54.363	277	48.65	45	33.536	460	40.19	49	6.254	385	21.87	32	36.510	345	25.01	17
Sept. 7	54.640	283	49.10	24	33.996	471	39.70	26	6.639	394	21.55	17	36.855	353	24.84	10
17	54.923	286	49.34	2	34.467	476	39.44	1	7.033	398	21.38	1	37.208	357	24.74	1
27	55.209	285	49.36	21	34.943	476	39.43	23	7.431	397	21.37	15	37.565	356	24.73	6
Okt. 7	55.494	280	49.15	43	35.419	466	39.66	47	7.828	391	21.52	30	37.921	351	24.79	15
17	55.774	271	48.72	63	35.885	451	40.13	71	8.219	378	21.82	46	38.272	340	24.94	23
27	56.045	257	48.09	80	36.336	428	40.84	95	8.597	361	22.28	62	38.612	325	25.17	33
Nov. 6	56.302	239	47.29	94	36.764	395	41.79	118	8.958	334	22.90	78	38.937	302	25.50	43
16	56.541	215	46.35	103	37.159	353	42.97	139	9.292	301	23.68	94	39.239	273	25.93	54
26	56.756	185	45.32	107	37.512	301	44.36	157	9.593	260	24.62	108	39.512	236	26.47	64
Dez. 6	56.941	150	44.25	107	37.813	240	45.93	172	9.853	210	25.70	121	39.748	193	27.11	74
16	20 57.091	110	43.18	103	20 38.053	171	47.65	182	21 10.063	153	26.91	129	21 39.941	143	27.85	82
25	57.201	66	42.15	95	38.224	96	49.47	186	10.216	91	28.20	134	40.084	88	28.67	88
35	57.267		41.20		38.320		51.33		10.307		29.54		40.172		29.55	
Mittl. Ort	52.132		50.46		30.255		56.95		3.272		35.88		33.712		36.71	
sec δ, tg δ	1.008		+0.130		1.713		+1.391		1.413		+0.998		1.256		+0.759	
a, a'	+3.2		+0.7		+4.9		+0.5		+4.4		+0.4		+4.1		+0.4	
b, b'	0.00		−1.00		0.00		−1.00		0.00		−1.00		0.00		−1.00	

Tag	229) η Columbae AR.		229) η Columbae Dekl.		232) ν Orionis AR.		232) ν Orionis Dekl.		236) η Geminorum AR.		236) η Geminorum Dekl.		234) 22 H. Camelop. AR.		234) 22 H. Camelop. Dekl.	
1939	5h 57m		−42° 48′		6h 4m		+14° 46′		6h 11m		+22° 31′		6h 12m		+69° 20′	
	s		"		s		"		s		"		s		"	
Jan. 0	19.066	25	74.88	316	7.632	55	30.35	51	14.135	66	26.81	4	13.18	8	34.75	256
10	19.041	85	78.04	290	7.687	5	29.84	41	14.201	14	26.77	3	13.26	5	37.31	249
20	18.956	139	80.94	256	7.692	42	29.43	32	14.215	36	26.80	9	13.21	18	39.80	232
30	18.817	188	83.50	217	7.650	87	29.11	24	14.179	85	26.89	12	13.03	29	42.12	205
Febr. 9	18.629	230	85.67	172	7.563	125	28.87	18	14.094	126	27.01	12	12.74	39	44.17	171
19	18.399	261	87.39	125	7.438	156	28.69	13	13.968	159	27.13	11	12.35	47	45.88	130
März 1	18.138	282	88.64	76	7.282	177	28.56	9	13.809	182	27.24	7	11.88	52	47.18	83
11	17.856	291	89.40	26	7.105	186	28.47	6	13.627	194	27.31	2	11.36	56	48.01	34
21	17.565	289	89.66	23	6.919	186	28.41	4	13.433	195	27.33	4	10.80	56	48.35	16
31	17.276	274	89.43	71	6.733	175	28.37	0	13.238	184	27.29	9	10.24	53	48.19	65
Apr. 10	17.002	251	88.72	117	6.558	154	28.37	3	13.054	163	27.20	13	9.71	48	47.54	112
20	16.751	218	87.55	159	6.404	125	28.40	7	12.891	134	27.07	16	9.23	42	46.42	152
30	16.533	177	85.96	199	6.279	89	28.47	13	12.757	98	26.91	18	8.81	33	44.90	186
Mai 10	16.356	132	83.97	233	6.190	50	28.60	19	12.659	57	26.73	17	8.48	23	43.04	215
20	16.224	82	81.64	262	6.140	8	28.79	25	12.602	14	26.56	15	8.25	12	40.89	235
30	16.142	30	79.02	285	6.132	35	29.04	33	12.588	31	26.41	11	8.13	1	38.54	247
Juni 9	16.112	23	76.17	300	6.167	76	29.37	41	12.619	74	26.30	6	8.12	10	36.07	253
19	16.135	74	73.17	307	6.243	116	29.78	46	12.693	115	26.24	2	8.22	20	33.54	251
29	16.209	123	70.10	306	6.359	152	30.24	50	12.808	154	26.22	3	8.42	31	31.03	243
Juli 9	16.332	170	67.04	297	6.511	185	30.74	53	12.962	188	26.25	7	8.73	40	28.60	230
19	16.502	212	64.07	278	6.696	212	31.27	53	13.150	217	26.32	9	9.13	49	26.30	211
29	16.714	250	61.29	250	6.908	237	31.80	50	13.367	243	26.41	11	9.62	56	24.19	187
Aug. 8	16.964	281	58.79	213	7.145	256	32.30	45	13.610	264	26.52	9	10.18	62	22.32	161
18	17.245	307	56.66	170	7.401	271	32.75	35	13.874	281	26.61	7	10.80	68	20.71	132
28	17.552	327	54.96	119	7.672	282	33.10	24	14.155	294	26.68	2	11.48	72	19.39	99
Sept. 7	17.879	340	53.77	63	7.954	290	33.34	11	14.449	302	26.70	4	12.20	74	18.40	65
17	18.219	345	53.14	3	8.244	295	33.45	4	14.751	308	26.66	12	12.94	76	17.75	30
27	18.564	345	53.11	58	8.539	295	33.41	20	15.059	311	26.54	19	13.70	77	17.45	6
Okt. 7	18.909	335	53.69	117	8.834	292	33.21	34	15.370	308	26.35	25	14.47	75	17.51	44
17	19.244	319	54.86	173	9.126	285	32.87	47	15.678	302	26.10	30	15.22	73	17.95	80
27	19.563	295	56.59	225	9.411	273	32.40	58	15.980	291	25.80	34	15.95	70	18.75	117
Nov. 6	19.858	263	58.84	268	9.684	257	31.82	66	16.271	274	25.46	35	16.65	65	19.92	152
16	20.121	223	61.52	301	9.941	233	31.16	69	16.545	252	25.11	33	17.30	58	21.44	184
26	20.344	177	64.53	324	10.174	204	30.47	70	16.797	221	24.78	29	17.88	49	23.28	211
Dez. 6	20.521	125	67.77	336	10.378	169	29.77	67	17.018	185	24.49	23	18.37	39	25.39	234
16	21 20.646	69	71.13	335	23 10.547	128	29.10	61	25 17.203	143	24.26	14	25 18.76	28	27.73	250
25	20.715	10	74.48	326	10.675	83	28.49	53	17.346	95	24.12	7	19.04	15	30.23	258
35	20.725		77.74		10.758		27.96		17.441		24.05		19.19		32.81	
Mittl. Ort	16.775		64.58		5.369		38.10		11.759		34.54		7.73		40.61	
sec δ, tg δ	1.363		−0.927		1.034		+0.264		1.083		+0.415		2.835		+2.653	
a, *a′*	+1.8		+0.2		+3.4		−0.4		+3.6		−1.0		+6.6		−1.1	
b, *b′*	0.00		−1.00		0.00		−1.00		0.00		−1.00		−0.01		−1.00	

Scheinbare Sternörter 1939

Tag	240) ζ Canis maj. AR.		Dekl.		241) μ Geminorum AR.		Dekl.		243) β Canis maj. AR.		Dekl.		242) ψ^1 Aurigae AR.		Dekl.	
1939	$6^h\ 17^m$		$-30°\ 1'$		$6^h\ 19^m$		$+22°\ 32'$		$6^h\ 20^m$		$-17°\ 55'$		$6^h\ 20^m$		$+49°\ 18'$	
Jan. 0	60.413	25	75.78	287	18.636	75	39.93	6	2.888	43	36.73	236	15.368	89	69.34	156
10	60.438	27	78.65	265	18.711	22	39.87	3	2.931	6	39.09	218	15.457	17	70.90	156
20	60.411	78	81.30	238	18.733	29	39.90	9	2.925	53	41.27	193	15.474	55	72.46	150
30	60.333	124	83.68	204	18.704	78	39.99	13	2.872	98	43.20	166	15.419	122	73.96	137
Febr. 9	60.209	165	85.72	167	18.626	120	40.12	15	2.774	136	44.86	134	15.297	180	75.33	117
19	60.044	197	87.39	127	18.506	155	40.27	13	2.638	167	46.20	102	15.117	229	76.50	92
März 1	59.847	220	88.66	85	18.351	180	40.40	10	2.471	190	47.22	68	14.888	262	77.42	62
11	59.627	231	89.51	42	18.171	192	40.50	5	2.281	202	47.90	34	14.626	282	78.04	31
21	59.396	234	89.93	0	17.979	195	40.55	0	2.079	203	48.24	1	14.344	285	78.35	2
31	59.162	224	89.93	42	17.784	186	40.55	6	1.876	194	48.25	33	14.059	272	78.33	35
Apr. 10	58.938	206	89.51	82	17.598	166	40.49	11	1.682	178	47.92	65	13.787	247	77.98	65
20	58.732	179	88.69	120	17.432	138	40.38	14	1.504	153	47.27	96	13.540	209	77.33	93
30	58.553	146	87.49	156	17.294	103	40.24	16	1.351	121	46.31	124	13.331	160	76.40	116
Mai 10	58.407	108	85.93	187	17.191	63	40.08	16	1.230	85	45.07	150	13.171	105	75.24	134
20	58.299	65	84.06	215	17.128	20	39.92	15	1.145	45	43.57	173	13.066	46	73.90	147
30	58.234	22	81.91	238	17.108	23	39.77	12	1.100	5	41.84	191	13.020	15	72.43	155
Juni 9	58.212	22	79.53	254	17.131	66	39.65	8	1.095	36	39.93	206	13.035	76	70.88	159
19	58.234	65	76.99	264	17.197	108	39.57	4	1.131	75	37.87	215	13.111	134	69.29	158
29	58.299	107	74.35	266	17.305	146	39.53	1	1.206	113	35.72	218	13.245	189	67.71	152
Juli 9	58.406	146	71.69	261	17.451	181	39.52	3	1.319	148	33.54	214	13.434	239	66.19	144
19	58.552	182	69.08	248	17.632	211	39.55	6	1.467	179	31.40	203	13.673	283	64.75	132
29	58.734	213	66.60	226	17.843	237	39.61	5	1.646	206	29.37	186	13.956	322	63.43	120
Aug. 8	58.947	240	64.34	197	18.080	259	39.66	4	1.852	230	27.51	162	14.278	354	62.23	104
18	59.187	263	62.37	160	18.339	276	39.70	1	2.082	249	25.89	131	14.632	381	61.19	88
28	59.450	282	60.77	117	18.615	290	39.71	4	2.331	265	24.58	95	15.013	402	60.31	71
Sept. 7	59.732	295	59.60	68	18.905	301	39.67	10	2.596	277	23.63	54	15.415	417	59.60	52
17	60.027	303	58.92	16	19.206	308	39.57	17	2.873	285	23.09	9	15.832	427	59.08	34
27	60.330	307	58.76	39	19.514	311	39.40	25	3.158	288	23.00	36	16.259	432	58.74	14
Okt. 7	60.637	304	59.15	92	19.825	310	39.15	31	3.446	286	23.36	81	16.691	430	58.60	6
17	60.941	295	60.07	144	20.135	305	38.84	37	3.732	280	24.17	124	17.121	422	58.66	27
27	61.236	281	61.51	190	20.440	296	38.47	40	4.012	269	25.41	163	17.543	407	58.93	49
Nov. 6	61.517	259	63.41	231	20.736	280	38.07	40	4.281	250	27.04	197	17.950	384	59.42	71
16	61.776	230	65.72	263	21.016	258	37.67	38	4.531	227	29.01	222	18.334	351	60.13	92
26	62.006	195	68.35	285	21.274	229	37.29	34	4.758	196	31.23	240	18.685	309	61.05	113
Dez. 6	62.201	153	71.20	298	21.503	194	36.95	26	4.954	160	33.63	249	18.994	257	62.18	131
16	62.354	107	74.18	301	21.697	151	36.69	17	5.114	118	36.12	250	19.251	198	63.49	145
26	62.461	56	77.19	293	21.848	103	36.52	9	5.232	71	38.62	242	19.449	131	64.94	155
35	[26] 62.517		80.12		[27] 21.951		36.43		[27] 5.303		41.04		[27] 19.580		66.49	
Mittl. Ort	58.238		66.38		16.262		48.10		0.776		27.53		12.159		76.68	
sec δ, tg δ	1.155		−0.578		1.083		+0.415		1.051		−0.323		1.534		+1.164	
a, a'	+2.3		−1.6		+3.6		−1.7		+2.6		−1.7		+4.6		−1.8	
b, b'	0.00		−1.00		0.00		−1.00		0.00		−1.00		−0.01		−1.00	

Tag	244) 8 Monocerotis AR.		Dekl.		245) α Argus AR.		Dekl.		246) 10 Monocerotis AR.		Dekl.		247) 8 Lyncis AR.		Dekl.	
1939	6h 20m		+4° 37′		6h 22m		−52° 39′		6h 24m		−4° 43′		6h 32m		+61° 31′	
	s	Δ	″	Δ	s	Δ	″	Δ	s	Δ	″	Δ	s	Δ	″	Δ
Jan. 0	34.338	64	22.32	115	38.426	21	51.67	349	58.968	61	31.69	170	11.37	12	66.65	218
10	34.402	16	21.17	102	38.405	94	55.16	328	59.029	13	33.39	154	11.49	2	68.83	219
20	34.418	32	20.15	87	38.311	161	58.44	296	59.042	34	34.93	135	11.51	8	71.02	209
30	34.386	76	19.28	71	38.150	222	61.40	257	59.008	78	36.28	115	11.43	16	73.11	192
Febr. 9	34.310	115	18.57	55	37.928	274	63.97	213	58.930	117	37.43	92	11.27	25	75.03	166
19	34.195	147	18.02	41	37.654	316	66.10	165	58.813	149	38.35	68	11.02	32	76.69	134
März 1	34.048	169	17.61	26	37.338	345	67.75	114	58.664	172	39.03	46	10.70	37	78.03	95
11	33.879	181	17.35	12	36.993	362	68.89	61	58.492	184	39.49	23	10.33	39	78.98	53
21	33.698	184	17.23	1	36.631	364	69.50	9	58.308	187	39.72	0	9.94	40	79.51	10
31	33.514	175	17.24	13	36.267	354	69.59	43	58.121	179	39.72	21	9.54	40	79.61	35
Apr. 10	33.339	158	17.37	26	35.913	333	69.16	93	57.942	163	39.51	42	9.14	36	79.26	76
20	33.181	132	17.63	39	35.580	301	68.23	141	57.779	139	39.09	63	8.78	31	78.50	113
30	33.049	100	18.02	52	35.279	260	66.82	185	57.640	107	38.46	82	8.47	26	77.37	147
Mai 10	32.949	64	18.54	63	35.019	211	64.97	224	57.533	73	37.64	100	8.21	18	75.90	175
20	32.885	25	19.17	75	34.808	156	62.73	258	57.460	35	36.64	117	8.03	11	74.15	196
30	32.860	15	19.92	85	34.652	98	60.15	286	57.425	5	35.47	131	7.92	3	72.19	211
Juni 9	32.875	55	20.77	94	34.554	38	57.29	307	57.430	44	34.16	142	7.89	5	70.08	219
19	32.930	93	21.71	100	34.516	23	54.22	319	57.474	82	32.74	149	7.94	14	67.89	222
29	33.023	128	22.71	103	34.539	84	51.03	322	57.556	117	31.25	153	8.08	21	65.67	219
Juli 9	33.151	161	23.74	103	34.623	142	47.81	317	57.673	150	29.72	150	8.29	28	63.48	210
19	33.312	189	24.77	99	34.765	197	44.64	302	57.823	179	28.22	145	8.57	34	61.38	197
29	33.501	213	25.76	91	34.962	248	41.62	277	58.002	205	26.77	132	8.91	40	59.41	181
Aug. 8	33.714	235	26.67	78	35.210	292	38.85	242	58.207	227	25.45	114	9.31	45	57.60	161
18	33.949	252	27.45	62	35.502	332	36.43	200	58.434	244	24.31	92	9.76	49	55.99	138
28	34.201	265	28.07	42	35.834	363	34.43	149	58.678	259	23.39	65	10.25	53	54.61	113
Sept. 7	34.466	275	28.49	19	36.197	386	32.94	92	58.937	271	22.74	34	10.78	55	53.48	86
17	34.741	282	28.68	5	36.583	401	32.02	30	59.208	278	22.40	1	11.33	56	52.62	58
27	35.023	285	28.63	31	36.984	407	31.72	33	59.486	282	22.39	33	11.89	58	52.04	27
Okt. 7	35.308	285	28.32	56	37.391	402	32.05	98	59.768	282	22.72	68	12.47	57	51.77	4
17	35.593	280	27.76	80	37.793	386	33.03	160	60.050	278	23.40	100	13.04	57	51.81	36
27	35.873	271	26.96	99	38.179	362	34.63	216	60.328	268	24.40	128	13.61	55	52.17	69
Nov. 6	36.144	256	25.97	116	38.541	325	36.79	266	60.596	253	25.68	151	14.16	52	52.86	101
16	36.400	235	24.81	126	38.866	279	39.45	307	60.849	233	27.19	170	14.68	47	53.87	131
26	36.635	208	23.55	132	39.145	224	42.52	336	61.082	205	28.89	181	15.15	42	55.18	160
Dez. 6	36.843	174	22.23	133	39.369	162	45.88	355	61.287	171	30.70	185	15.57	34	56.78	185
16	37.017	135	20.90	128	39.531	94	49.43	361	61.458	132	32.55	183	15.91	27	58.63	203
26	[27] 37.152	91	19.62	120	[28] 39.625	22	53.04	356	[28] 61.590	88	34.38	175	[30] 16.18	18	60.66	217
35	37.243		18.42		39.647		56.60		61.678		36.13		16.36		62.83	
Mittl. Ort	32.170		31.06		35.786		42.40		56.846		22.68		7.24		74.73	
sec δ, tg δ	1.003		+0.081		1.649		−1.311		1.003		−0.083		2.098		+1.845	
a, a'	+3.2		−1.8		+1.3		−2.0		+3.0		−2.2		+5.5		−2.8	
b, b'	0.00		−1.00		+0.01		−1.00		0.00		−0.99		−0.02		−0.99	

Scheinbare Sternörter 1939

Tag	249) ξ^2 Canis maj. AR.		Dekl.		251) γ Geminorum AR.		Dekl.		250) 51 Aurigae AR.		Dekl.		248) 23 H. Camelop. AR.		Dekl.	
1939	$6^h\ 32^m$		$-22°\ 54'$		$6^h\ 34^m$		$+16°\ 26'$		$6^h\ 34^m$		$+39°\ 26'$		$6^h\ 35^m$		$+79°\ 37'$	
	s		"		s		"		s		"		s		"	
Jan. 0	32.101	51	64.10	263	13.611	86	61.73	46	28.793	102	38.88	96	61.40	19	59.15	293
10	32.152	0	66.73	245	13.697	35	61.27	35	28.895	40	39.84	103	61.59	6	62.08	290
20	32.152	51	69.18	221	13.732	15	60.92	25	28.935	23	40.87	103	61.53	30	64.98	276
30	32.101	96	71.39	191	13.717	64	60.67	15	28.912	82	41.90	98	61.23	53	67.74	252
Febr. 9	32.005	137	73.30	157	13.653	107	60.52	7	28.830	135	42.88	88	60.70	74	70.26	217
19	31.868	171	74.87	122	13.546	142	60.45	2	28.695	178	43.76	74	59.96	91	72.43	173
März 1	31.697	195	76.09	85	13.404	168	60.43	1	28.517	211	44.50	55	59.05	103	74.16	123
11	31.502	208	76.94	48	13.236	183	60.44	4	28.306	230	45.05	34	58.02	112	75.39	69
21	31.294	213	77.42	10	13.053	187	60.48	5	28.076	236	45.39	11	56.90	114	76.08	12
31	31.081	207	77.52	27	12.866	181	60.53	5	27.840	228	45.50	13	55.76	111	76.20	45
Apr. 10	30.874	191	77.25	63	12.685	165	60.58	6	27.612	209	45.37	35	54.65	105	75.75	98
20	30.683	167	76.62	97	12.520	141	60.64	8	27.403	179	45.02	55	53.60	93	74.77	148
30	30.516	137	75.65	129	12.379	109	60.72	9	27.224	140	44.47	73	52.67	80	73.29	193
Mai 10	30.379	102	74.36	159	12.270	72	60.81	13	27.084	94	43.74	86	51.87	62	71.36	228
20	30.277	64	72.77	184	12.198	32	60.94	16	26.990	46	42.88	96	51.25	43	69.08	258
30	30.213	23	70.93	205	12.166	9	61.10	20	26.944	5	41.92	103	50.82	23	66.50	278
Juni 9	30.190	19	68.88	221	12.175	49	61.30	25	26.949	56	40.89	106	50.59	1	63.72	291
19	30.209	59	66.67	232	12.224	89	61.55	28	27.005	105	39.83	106	50.58	20	60.81	296
29	30.268	97	64.35	237	12.313	126	61.83	31	27.110	151	38.77	104	50.78	40	57.85	292
Juli 9	30.365	134	61.98	233	12.439	159	62.14	32	27.261	194	37.73	100	51.18	59	54.93	283
19	30.499	167	59.65	223	12.598	189	62.46	31	27.455	231	36.73	93	51.77	77	52.10	266
29	30.666	197	57.42	205	12.787	216	62.77	28	27.686	264	35.80	86	52.54	94	49.44	244
Aug. 8	30.863	223	55.37	179	13.003	238	63.05	23	27.950	293	34.94	79	53.48	108	47.00	217
18	31.086	246	53.58	148	13.241	257	63.28	14	28.243	317	34.15	70	54.56	120	44.83	186
28	31.332	264	52.10	110	13.498	273	63.42	4	28.560	335	33.45	62	55.76	130	42.97	151
Sept. 7	31.596	279	51.00	66	13.771	284	63.46	8	28.895	351	32.83	54	57.06	138	41.46	112
17	31.875	288	50.34	18	14.055	293	63.38	22	29.246	362	32.29	44	58.44	143	40.34	72
27	32.163	294	50.16	31	14.348	299	63.16	35	29.608	369	31.85	34	59.87	145	39.62	29
Okt. 7	32.457	295	50.47	80	14.647	301	62.81	49	29.977	370	31.51	24	61.32	146	39.33	15
17	32.752	290	51.27	128	14.948	299	62.32	59	30.347	367	31.27	11	62.78	142	39.48	60
27	33.042	280	52.55	171	15.247	292	61.73	69	30.714	358	31.16	2	64.20	136	40.08	105
Nov. 6	33.322	263	54.26	208	15.539	278	61.04	74	31.072	341	31.18	17	65.56	127	41.13	147
16	33.585	238	56.34	238	15.817	259	60.30	76	31.413	317	31.35	34	66.83	115	42.60	188
26	33.823	208	58.72	260	16.076	232	59.54	75	31.730	284	31.69	50	67.98	98	44.48	224
Dez. 6	34.031	170	61.32	272	16.308	200	58.79	69	32.014	242	32.19	66	68.96	79	46.72	255
16	34.201	127	64.04	274	16.508	159	58.10	60	32.256	193	32.85	81	69.75	58	49.27	278
26	34.328	80	66.78	269	16.667	114	57.50	51	32.449	137	33.66	93	70.33	34	52.05	292
35	30 34.408		69.47		31 16.781		56.99		31 32.586		34.59		31 70.67		54.97	
Mittl. Ort	29.956		55.03		11.333		70.74		26.032		47.61		51.62		67.19	
sec δ, tg δ	1.086		−0.423		1.043		+0.295		1.295		+0.823		5.558		+5.468	
a, *a'*	+2.5		−2.8		+3.5		−3.0		+4.2		−3.0		+10.3		−3.1	
b, *b'*	0.00		−0.99		0.00		−0.99		−0.01		−0.99		− 0.06		−0.99	

Tag	252) ν Argus AR.		252) ν Argus Dekl.		253) S Monocerotis AR.		253) S Monocerotis Dekl.		254) ε Geminorum AR.		254) ε Geminorum Dekl.		256) ξ Geminorum AR.		256) ξ Geminorum Dekl.	
1939	6h 35m		−43° 8′		6h 37m		+9° 56′		6h 40m		+25° 11′		6h 41m		+12° 57′	
	s		"		s		"		s		"		s		"	
Jan. 0*)	°56.058	24	39.13	336	°39.384	85	64.32	87	1 13.255	98	26.63	7	54.236	90	37.08	70
10	56.082	38	42.49	316	39.469	35	63.45	74	13.353	44	26.70	17	1 54.326	41	36.38	58
20	56.044	98	45.65	288	39.504	15	62.71	61	13.397	10	26.87	25	54.367	10	35.80	45
30	55.946	153	48.53	253	39.489	61	62.10	48	13.387	62	27.12	30	54.357	58	35.35	33
Febr. 9	55.793	200	51.06	212	39.428	103	61.62	35	13.325	107	27.42	32	54.299	100	35.02	22
19	55.593	239	53.18	168	39.325	138	61.27	23	13.218	146	27.74	30	54.199	136	34.80	13
März 1	55.354	268	54.86	121	39.187	163	61.04	14	13.072	175	28.04	25	54.063	163	34.67	6
11	55.086	285	56.07	72	39.024	179	60.90	5	12.897	193	28.29	18	53.900	179	34.61	1
21	54.801	290	56.79	23	38.845	183	60.85	3	12.704	198	28.47	11	53.721	185	34.60	5
31	54.511	283	57.02	26	38.662	178	60.88	11	12.506	193	28.58	2	53.536	180	34.65	9
Apr. 10	54.228	267	56.76	74	38.484	163	60.99	17	12.313	176	28.60	6	53.356	165	34.74	13
20	53.961	241	56.02	119	38.321	139	61.16	25	12.137	152	28.54	14	53.191	142	34.87	17
30	53.720	208	54.83	162	38.182	109	61.41	32	11.985	118	28.40	20	53.049	112	35.04	22
Mai 10	53.512	167	53.21	199	38.073	74	61.73	40	11.867	81	28.20	23	52.937	77	35.26	27
20	53.345	122	51.22	234	37.999	36	62.13	47	11.786	39	27.97	26	52.860	39	35.53	32
30	53.223	73	48.88	261	37.963	3	62.60	54	11.747	4	27.71	27	52.821	0	35.85	38
Juni 9	53.150	24	46.27	282	37.966	43	63.14	61	11.751	47	27.44	26	52.821	41	36.23	43
19	53.126	27	43.45	296	38.009	81	63.75	65	11.798	89	27.18	24	52.862	79	36.66	46
29	53.153	76	40.49	302	38.090	117	64.40	68	11.887	128	26.94	23	52.941	115	37.12	49
Juli 9	53.229	124	37.47	298	38.207	150	65.08	68	12.015	163	26.71	20	53.056	149	37.61	49
19	53.353	169	34.49	287	38.357	179	65.76	65	12.178	196	26.51	19	53.205	178	38.10	47
29	53.522	210	31.62	265	38.536	206	66.41	59	12.374	224	26.32	19	53.383	205	38.57	42
Aug. 8	53.732	248	28.97	234	38.742	228	67.00	50	12.598	249	26.13	20	53.588	228	38.99	34
18	53.980	279	26.63	196	38.970	246	67.50	38	12.847	269	25.93	22	53.816	247	39.33	23
28	54.259	307	24.67	148	39.216	262	67.88	21	13.116	286	25.71	26	54.063	264	39.56	10
Sept. 7	54.566	327	23.19	96	39.478	275	68.09	4	13.402	299	25.45	31	54.327	276	39.66	5
17	54.893	343	22.23	38	39.753	284	68.13	16	13.701	310	25.14	35	54.603	286	39.61	22
27	55.236	350	21.85	23	40.037	290	67.97	37	14.011	317	24.79	40	54.889	294	39.39	39
Okt. 7	55.586	350	22.08	84	40.327	292	67.60	56	14.328	320	24.39	43	55.183	296	39.00	56
17	55.936	342	22.92	144	40.619	291	67.04	74	14.648	318	23.96	46	55.479	295	38.44	71
27	56.278	326	24.36	198	40.910	284	66.30	89	14.966	312	23.50	46	55.774	290	37.73	83
Nov. 6	56.604	301	26.34	247	41.194	271	65.41	101	15.278	299	23.04	44	56.064	277	36.90	92
16	56.905	267	28.81	287	41.465	253	64.40	108	15.577	279	22.60	38	56.341	259	35.98	97
26	57.172	225	31.68	317	41.718	227	63.32	110	15.856	252	22.22	30	56.600	234	35.01	97
Dez. 6	57.397	175	34.85	336	41.945	195	62.22	108	16.108	217	21.92	20	56.834	201	34.04	92
16	57.572	120	38.21	344	42.140	156	61.14	102	16.325	176	21.72	9	57.035	163	33.12	86
26	57.692	61	41.65	341	42.296	112	60.12	92	16.501	128	21.63	3	57.198	119	32.26	75
35	[31] 57.753		45.06		[31] 42.408		59.20		[32] 16.629		21.66		[32] 57.317		31.51	
Mittl. Ort	53.656		30.38		37.176		73.49		10.852		35.88		52.002		46.41	
sec δ, tg δ	1.371		−0.937		1.015		+0.176		1.105		+0.470		1.026		+0.230	
a, a′	+1.8		−3.1		+3.3		−3.3		+3.7		−3.5		+3.4		−3.6	
b, b′	+0.01		−0.99		0.00		−0.99		−0.01		−0.98		0.00		−0.98	

*) Bei Stern 254) und 256) lies Jan. 1.

Scheinbare Sternörter 1939

Tag	257) α Canis maj. [1] AR.		Dekl.		258) 18 Monocerotis AR.		Dekl.		262) α Pictoris AR.		Dekl.		261) ϑ Geminorum AR.		Dekl.	
1939	$6^h\ 42^m$		$-16°\ 37'$		$6^h\ 44^m$		$+2°\ 28'$		$6^h\ 47^m$		$-61°\ 52'$		$6^h\ 48^m$		$+34°\ 1'$	
Jan. 1	29.811	62	63.11	239	43.035	86	39.72	134	37.25	1	39.89	370	48.849	114	62.00	61
10	[1] 29.873	13	65.50	222	[2] 43.121	37	38.38	120	[3] 37.24	11	43.59	353	[3] 48.963	56	62.61	70
20	29.886	36	67.72	199	43.158	12	37.18	103	37.13	20	47.12	327	49.019	4	63.31	76
30	29.850	81	69.71	172	43.146	58	36.15	86	36.93	27	50.39	292	49.015	60	64.07	76
Febr. 9	29.769	123	71.43	142	43.088	100	35.29	67	36.66	35	53.31	250	48.955	111	64.83	73
19	29.646	156	72.85	110	42.988	134	34.62	50	36.31	40	55.81	204	48.844	155	65.56	65
März 1	29.490	181	73.95	77	42.854	160	34.12	33	35.91	44	57.85	154	48.689	188	66.21	52
11	29.309	196	74.72	44	42.694	177	33.79	16	35.47	47	59.39	101	48.501	208	66.73	37
21	29.113	200	75.16	12	42.517	182	33.63	1	35.00	48	60.40	47	48.293	217	67.10	20
31	28.913	195	75.28	21	42.335	178	33.62	14	34.52	48	60.87	6	48.076	213	67.30	2
Apr. 10	28.718	180	75.07	51	42.157	164	33.76	28	34.04	46	60.81	59	47.863	197	67.32	16
20	28.538	158	74.56	81	41.993	142	34.04	42	33.58	43	60.22	110	47.666	172	67.16	31
30	28.380	129	73.75	109	41.851	114	34.46	56	33.15	38	59.12	158	47.494	137	66.85	46
Mai 10	28.251	95	72.66	135	41.737	81	35.02	68	32.77	33	57.54	202	47.357	97	66.39	58
20	28.156	58	71.31	157	41.656	44	35.70	80	32.44	27	55.52	242	47.260	53	65.81	66
30	28.098	18	69.74	175	41.612	6	36.50	91	32.17	20	53.10	274	47.207	7	65.15	73
Juni 9	28.080	21	67.99	190	41.606	32	37.41	99	31.97	13	50.36	300	47.200	39	64.42	76
19	28.101	59	66.09	200	41.638	70	38.40	105	31.84	5	47.36	318	47.239	85	63.66	78
29	28.160	97	64.09	203	41.708	105	39.45	108	31.79	2	44.18	327	47.324	128	62.88	77
Juli 9	28.257	132	62.06	201	41.813	137	40.53	108	31.81	10	40.91	327	47.452	168	62.11	75
19	28.389	163	60.05	192	41.950	167	41.61	103	31.91	18	37.64	318	47.620	203	61.36	72
29	28.552	191	58.13	177	42.117	193	42.64	94	32.09	25	34.46	297	47.823	235	60.64	69
Aug. 8	28.743	216	56.36	154	42.310	216	43.58	81	32.34	31	31.49	268	48.058	263	59.95	66
18	28.959	238	54.82	125	42.526	236	44.39	63	32.65	37	28.81	228	48.321	286	59.29	63
28	29.197	255	53.57	91	42.762	253	45.02	42	33.02	42	26.53	181	48.607	306	58.66	60
Sept. 7	29.452	270	52.66	51	43.015	266	45.44	18	33.44	46	24.72	125	48.913	322	58.06	56
17	29.722	280	52.15	9	43.281	277	45.62	9	33.90	49	23.47	63	49.235	335	57.50	53
27	30.002	286	52.06	35	43.558	283	45.53	37	34.39	50	22.84	1	49.570	344	56.97	49
Okt. 7	30.288	289	52.41	80	43.841	287	45.16	64	34.89	51	22.85	67	49.914	348	56.48	44
17	30.577	285	53.21	123	44.128	286	44.52	89	35.40	50	23.52	133	50.262	348	56.04	37
27	30.862	276	54.44	161	44.414	281	43.63	112	35.90	47	24.85	194	50.610	342	55.67	27
Nov. 6	31.138	262	56.05	195	44.695	269	42.51	130	36.37	42	26.79	249	50.952	329	55.40	17
16	31.400	241	58.00	221	44.964	250	41.21	144	36.79	37	29.28	296	51.281	309	55.23	4
26	31.641	212	60.21	240	45.214	226	39.77	150	37.16	30	32.24	332	51.590	281	55.19	11
Dez. 6	31.853	177	62.61	250	45.440	195	38.27	152	37.46	22	35.56	358	51.871	243	55.30	26
16	32.030	136	65.11	251	45.635	156	36.75	148	37.68	13	39.14	370	52.114	199	55.56	42
26	32.166	91	67.62	245	45.791	112	35.27	140	37.81	5	42.84	373	52.313	147	55.98	56
35	[33] 32.257		70.07		[33] 45.903		33.87		[34] 37.86		46.57		[34] 52.460		56.54	
Mittl. Ort	27.683		53.86		40.883		49.04		34.02		32.24		46.271		71.77	
sec δ, tg δ	1.044		−0.299		1.001		+0.043		2.121		−1.871		1.207		+0.675	
a, *a′*	+2.7		−3.7		+3.1		−3.9		+0.6		−4.1		+4.0		−4.2	
b, *b′*	0.00		−0.98		0.00		−0.98		+0.03		−0.98		−0.01		−0.98	

[1]) Ort des Hauptsterns; die jährliche Parallaxe (0.″371) ist bereits berücksichtigt.

Tag	266) ϑ Canis maj. AR.		266) Dekl.		265) 15 Lyncis AR.		265) Dekl.		268) ε Canis maj. AR.		268) Dekl.		269) ζ Geminorum AR.		269) Dekl.	
1939	6h 51m		−11° 57′		6h 52m		+58° 29′		6h 56m		−28° 53′		7h 0m		+20° 39′	
Jan. 1	4 23.474	81	48.27	217	4 3.819	152	68.78	200	5 15.871	69	25.00	297	31.874	115	31.09	27
10	23.555	31	50.44	201	3.971	61	70.78	206	15.940	16	27.97	280	6 31.989	63	30.82	13
20	23.586	18	52.45	180	4.032	30	72.84	203	15.956	37	30.77	256	32.052	10	30.69	1
30	23.568	65	54.25	156	4.002	116	74.87	191	15.919	88	33.33	227	32.062	42	30.68	8
Febr. 9	23.503	106	55.81	129	3.886	195	76.78	172	15.831	132	35.60	193	32.020	89	30.76	15
19	23.397	142	57.10	100	3.691	262	78.50	145	15.699	170	37.53	155	31.931	128	30.91	20
März 1	23.255	168	58.10	72	3.429	313	79.95	111	15.529	199	39.08	115	31.803	159	31.11	21
11	23.087	184	58.82	43	3.116	347	81.06	74	15.330	217	40.23	75	31.644	180	31.32	19
21	22.903	192	59.25	14	2.769	362	81.80	33	15.113	225	40.98	33	31.464	189	31.51	17
31	22.711	189	59.39	14	2.407	358	82.13	9	14.888	223	41.31	8	31.275	187	31.68	13
Apr. 10	22.522	176	59.25	42	2.049	336	82.04	49	14.665	211	41.23	48	31.088	176	31.81	8
20	22.346	155	58.83	68	1.713	299	81.55	86	14.454	191	40.75	87	30.912	154	31.89	5
30	22.191	129	58.15	92	1.414	249	80.69	120	14.263	163	39.88	123	30.758	125	31.94	2
Mai 10	22.062	97	57.23	116	1.165	189	79.49	150	14.100	131	38.65	157	30.633	92	31.96	1
20	21.965	61	56.07	137	0.976	122	77.99	173	13.969	93	37.08	187	30.541	53	31.95	2
30	21.904	24	54.70	154	0.854	51	76.26	191	13.876	54	35.21	212	30.488	14	31.93	2
Juni 9	21.880	14	53.16	167	0.803	22	74.35	203	13.822	13	33.09	232	30.474	27	31.91	3
19	21.894	52	51.49	177	0.825	94	72.32	209	13.809	29	30.77	246	30.501	66	31.88	1
29	21.946	88	49.72	182	0.919	163	70.23	210	13.838	69	28.31	253	30.567	103	31.87	1
Juli 9	22.034	122	47.90	181	1.082	228	68.13	206	13.907	107	25.78	253	30.670	139	31.86	2
19	22.156	153	46.09	174	1.310	287	66.07	198	14.014	144	23.25	245	30.809	170	31.84	3
29	22.309	181	44.35	161	1.597	341	64.09	186	14.158	178	20.80	228	30.979	199	31.81	5
Aug. 8	22.490	205	42.74	141	1.938	389	62.23	170	14.336	208	18.52	204	31.178	224	31.76	10
18	22.695	228	41.33	116	2.327	429	60.53	153	14.544	235	16.48	172	31.402	247	31.66	17
28	22.923	247	40.17	85	2.756	464	59.00	131	14.779	259	14.76	133	31.649	265	31.49	24
Sept. 7	23.170	262	39.32	50	3.220	491	57.69	108	15.038	278	13.43	87	31.914	281	31.25	33
17	23.432	274	38.82	11	3.711	512	56.61	83	15.316	293	12.56	37	32.195	294	30.92	43
27	23.706	283	38.71	29	4.223	526	55.78	56	15.609	304	12.19	15	32.489	304	30.49	53
Okt. 7	23.989	287	39.00	70	4.749	532	55.22	28	15.913	308	12.34	69	32.793	310	29.96	62
17	24.276	286	39.70	109	5.281	530	54.94	3	16.221	308	13.03	122	33.103	313	29.34	68
27	24.562	281	40.79	145	5.811	519	54.97	35	16.529	300	14.25	170	33.416	309	28.66	73
Nov. 6	24.843	268	42.24	176	6.330	496	55.32	66	16.829	285	15.95	213	33.725	300	27.93	74
16	25.111	250	44.00	200	6.826	461	55.98	97	17.114	262	18.08	250	34.025	284	27.19	72
26	25.361	224	46.00	217	7.287	415	56.95	128	17.376	232	20.58	277	34.309	260	26.47	66
Dez. 6	25.585	192	48.17	226	7.702	355	58.23	155	17.608	194	23.35	294	34.569	229	25.81	57
16	25.777	152	50.43	228	8.057	284	59.78	178	17.802	150	26.29	302	34.798	190	25.24	45
26	25.929	108	52.71	222	35 8.341	203	61.56	195	17.952	100	29.31	300	34.988	143	24.79	32
35*)	35 26.037		54.93		8.544		63.51		36 18.052		32.31		35.131		24.47	
Mittl. Ort	21.353		39.20		0.073		78.76		13.659		16.60		29.570		41.29	
sec δ, tg δ	1.022		−0.212		1.914		+1.632		1.142		−0.552		1.069		+0.377	
a, *a′*	+2.8		−4.5		+5.2		−4.5		+2.4		−4.9		+3.6		−5.2	
b, *b′*	0.00		−0.97		−0.02		−0.97		+0.01		−0.97		−0.01		−0.97	

*) Bei Stern 268) und 269) lies Dez. 36.

Scheinbare Sternörter 1939

Tag	271) γ Canis maj. AR.		Dekl.		273) δ Canis maj. AR.		Dekl.		274) 63 Aurigae AR.		Dekl.		277) λ Geminorum AR.		Dekl.	
1939	7h 0m		−15° 32′		7h 5m		−26° 17′		7h 7m		+39° 24′		7h 14m		+16° 38′	
	s		″		s		″		s		″		s		″	
Jan. 1	6 62.094	87	39.78	238	7 56.806	83	51.02	289	8 30.498	142	68.07	89	10 37.572	126	56.36	56
10	62.181	37	42.16	223	56.889	30	53.91	274	30.640	80	68.96	101	37.698	75	55.80	40
20	62.218	13	44.39	201	56.919	23	56.65	251	30.720	16	69.97	108	37.773	22	55.40	27
30	62.205	60	46.40	176	56.896	73	59.16	223	30.736	46	71.05	109	37.795	29	55.13	14
Febr. 9	62.145	103	48.16	148	56.823	118	61.39	190	30.690	104	72.14	104	37.766	76	54.99	2
19	62.042	140	49.64	117	56.705	156	63.29	155	30.586	153	73.18	95	37.690	116	54.97	6
März 1	61.902	168	50.81	86	56.549	186	64.84	117	30.433	191	74.13	79	37.574	149	55.03	12
11	61.734	186	51.67	54	56.363	206	66.01	78	30.242	218	74.92	60	37.425	170	55.15	15
21	61.548	195	52.21	22	56.157	216	66.79	38	30.024	231	75.52	39	37.255	182	55.30	17
31	61.353	193	52.43	9	55.941	215	67.17	1	29.793	231	75.91	15	37.073	183	55.47	17
Apr. 10	61.160	182	52.34	39	55.726	205	67.16	39	29.562	218	76.06	9	36.890	173	55.64	17
20	60.978	163	51.95	68	55.521	186	66.77	77	29.344	195	75.97	31	36.717	155	55.81	17
30	60.815	138	51.27	96	55.335	161	66.00	112	29.149	162	75.66	52	36.562	129	55.98	16
Mai 10	60.677	107	50.31	122	55.174	130	64.88	144	28.987	122	75.14	69	36.433	98	56.14	16
20	60.570	72	49.09	144	55.044	94	63.44	174	28.865	78	74.45	84	36.335	63	56.30	17
30	60.498	35	47.65	164	54.950	57	61.70	198	28.787	30	73.61	96	36.272	25	56.47	18
Juni 9	60.463	3	46.01	180	54.893	17	59.72	219	28.757	18	72.65	104	36.247	13	56.65	18
19	60.466	40	44.21	191	54.876	23	57.53	233	28.775	65	71.61	110	36.260	51	56.83	20
29	60.506	76	42.30	196	54.899	62	55.20	240	28.840	112	70.51	112	36.311	87	57.03	18
Juli 9	60.582	111	40.34	196	54.961	99	52.80	242	28.952	155	69.39	113	36.398	121	57.21	18
19	60.693	143	38.38	189	55.060	135	50.38	234	29.107	194	68.26	112	36.519	153	57.39	15
29	60.836	172	36.49	176	55.195	168	48.04	220	29.301	230	67.14	108	36.672	181	57.54	10
Aug. 8	61.008	199	34.73	155	55.363	198	45.84	197	29.531	261	66.06	104	36.853	207	57.64	3
18	61.207	222	33.18	130	55.561	225	43.87	167	29.792	289	65.02	99	37.060	229	57.67	7
28	61.429	243	31.88	97	55.786	249	42.20	129	30.081	314	64.03	93	37.289	250	57.60	17
Sept. 7	61.672	260	30.91	60	56.035	269	40.91	87	30.395	334	63.10	87	37.539	267	57.43	30
17	61.932	274	30.31	19	56.304	286	40.04	39	30.729	350	62.23	79	37.806	282	57.13	45
27	62.206	284	30.12	25	56.590	297	39.65	12	31.079	363	61.44	70	38.088	294	56.68	58
Okt. 7	62.490	291	30.37	68	56.887	304	39.77	64	31.442	372	60.74	60	38.382	303	56.10	71
17	62.781	291	31.05	110	57.191	305	40.41	115	31.814	375	60.14	47	38.685	307	55.39	83
27	63.072	286	32.15	150	57.496	300	41.56	163	32.189	371	59.67	32	38.992	306	54.56	91
Nov. 6	63.358	276	33.65	184	57.796	287	43.19	205	32.560	361	59.35	15	39.298	299	53.65	96
16	63.634	257	35.49	211	58.083	267	45.24	240	32.921	343	59.20	3	39.597	286	52.69	96
26	63.891	232	37.60	232	58.350	239	47.64	268	33.264	315	59.23	24	39.883	264	51.73	94
Dez. 6	64.123	199	39.92	243	58.589	204	50.32	285	33.579	278	59.47	44	40.147	235	50.79	86
16	64.322	160	42.35	247	58.793	161	53.17	293	33.857	231	59.91	64	40.382	198	49.93	75
26	64.482	115	44.82	242	58.954	113	56.10	291	34.088	177	60.55	82	40.580	153	49.18	63
36	64.597		47.24		59.067		59.01		34.265		61.37		40.733		48.55	
Mittl. Ort	59.965		30.92		54.614		42.77		27.817		79.15		35.340		66.98	
sec δ, tg δ	1.038		−0.278		1.115		−0.494		1.295		+0.822		1.044		+0.299	
a, *a*′	+2.7		−5.3		+2.4		−5.7		+4.1		−5.8		+3.5		−6.4	
b, *b*′	0.00		−0.96		+0.01		−0.96		−0.02		−0.96		−0.01		−0.95	

Tag	278) π Argus AR.		278) π Argus Dekl.		279) δ Geminorum AR.		279) δ Geminorum Dekl.		281) δ Volantis AR.		281) δ Volantis Dekl.		280) 19 Lyncis seq. AR.		280) 19 Lyncis seq. Dekl.	
1939	$7^h\ 14^m$		−36° 59′		$7^h\ 16^m$		+22° 5′		$7^h\ 16^m$		−67° 50′		$7^h\ 17^m$		+55° 23′	
	s		″		s		″		s		″		s		″	
Jan. 1	61.580	83	20.50	331	31.244	133	36.02	22	56.06	3	50.20	381	57.282	189	42.57	176
10	61.663	25	23.81	317	31.377	80	35.80	7	56.09	8	54.01	372	57.471	105	44.33	190
20	61.688	33	26.98	295	31.457	26	35.73	6	56.01	20	57.73	352	57.576	19	46.23	193
30	61.655	89	29.93	267	31.483	28	35.79	17	55.81	30	61.25	324	57.595	64	48.16	190
Febr. 9	61.566	138	32.60	231	31.455	76	35.96	25	55.51	39	64.49	288	57.531	141	50.06	177
19	61.428	181	34.91	193	31.379	118	36.21	29	55.12	47	67.37	245	57.390	208	51.83	157
März 1	61.247	214	36.84	150	31.261	152	36.50	31	54.65	53	69.82	199	57.182	263	53.40	130
11	61.033	236	38.34	105	31.109	175	36.81	29	54.12	57	71.81	149	56.919	301	54.70	98
21	60.797	249	39.39	60	30.934	188	37.10	25	53.55	60	73.30	96	56.618	322	55.68	61
31	60.548	251	39.99	15	30.746	189	37.35	20	52.95	61	74.26	42	56.296	327	56.29	22
Apr. 10	60.297	242	40.14	31	30.557	179	37.55	14	52.34	59	74.68	12	55.969	314	56.51	16
20	60.055	224	39.83	75	30.378	161	37.69	8	51.75	57	74.56	64	55.655	288	56.35	53
30	59.831	199	39.08	116	30.217	134	37.77	2	51.18	53	73.92	115	55.367	247	55.82	88
Mai 10	59.632	167	37.92	155	30.083	102	37.79	3	50.65	47	72.77	163	55.120	198	54.94	119
20	59.465	130	36.37	190	29.981	66	37.76	6	50.18	41	71.14	207	54.922	141	53.75	145
30	59.335	90	34.47	220	29.915	28	37.70	9	49.77	33	69.07	246	54.781	79	52.30	167
Juni 9	59.245	48	32.27	245	29.887	12	37.61	10	49.44	25	66.61	277	54.702	14	50.63	182
19	59.197	4	29.82	263	29.899	52	37.51	12	49.19	16	63.84	302	54.688	50	48.81	194
29	59.193	40	27.19	274	29.951	89	37.39	14	49.03	7	60.82	318	54.738	112	46.87	199
Juli 9	59.233	82	24.45	277	30.040	124	37.25	15	48.96	3	57.64	325	54.850	173	44.88	202
19	59.315	123	21.68	271	30.164	156	37.10	17	48.99	13	54.39	323	55.023	229	42.86	198
29	59.438	161	18.97	257	30.320	186	36.93	21	49.12	22	51.16	310	55.252	279	40.88	192
Aug. 8	59.599	198	16.40	234	30.506	213	36.72	25	49.34	31	48.06	287	55.531	326	38.96	182
18	59.797	232	14.06	202	30.719	237	36.47	31	49.65	39	45.19	254	55.857	367	37.14	169
28	60.029	261	12.04	161	30.956	257	36.16	39	50.04	47	42.65	211	56.224	403	35.45	153
Sept. 7	60.290	286	10.43	115	31.213	276	35.77	48	50.51	53	40.54	160	56.627	433	33.92	135
17	60.576	307	9.28	62	31.489	291	35.29	56	51.04	57	38.94	101	57.060	459	32.57	114
27	60.883	322	8.66	5	31.780	304	34.73	65	51.61	61	37.93	39	57.519	478	31.43	91
Okt. 7	61.205	332	8.61	53	32.084	313	34.08	72	52.22	63	37.54	28	57.997	490	30.52	66
17	61.537	333	9.14	110	32.397	317	33.36	78	52.85	62	37.82	95	58.487	496	29.86	38
27	61.870	327	10.24	166	32.714	317	32.58	80	53.47	60	38.77	159	58.983	493	29.48	8
Nov. 6	62.197	313	11.90	215	33.031	311	31.78	80	54.07	55	40.36	219	59.476	479	29.40	24
16	62.510	290	14.05	258	33.342	296	30.98	76	54.62	49	42.55	271	59.955	454	29.64	56
26	62.800	258	16.63	292	33.638	275	30.22	68	55.11	42	45.26	314	60.409	418	30.20	88
Dez. 6	63.058	218	19.55	315	33.913	245	29.54	57	55.53	32	48.40	348	60.827	367	31.08	118
16	63.276	171	22.70	329	34.158	207	28.97	44	55.85	21	51.88	369	61.194	307	32.26	145
26	63.447	117	25.99	332	34.365	161	28.53	29	56.06	10	55.57	378	61.501	234	33.71	169
36	63.564		29.31		34.526		28.24		56.16		59.35		61.735		35.40	
Mittl. Ort	59.247		13.18		28.950		46.99		52.13		44.73		53.909		54.77	
sec δ, tg δ	1.252		−0.753		1.079		+0.406		2.652		−2.456		1.761		+1.449	
$a,\ a'$	+2.1		−6.4		+3.6		−6.6		0.0		−6.6		+4.9		−6.7	
$b,\ b'$	+0.02		−0.95		−0.01		−0.94		+0.05		−0.94		−0.03		−0.94	

Scheinbare Sternörter 1939

Tag	282) ι Geminorum AR.	Dekl.	285) β Canis min. AR.	Dekl.	284) Grb 1308 AR.	Dekl.	286) ρ Geminorum AR.	Dekl.
1939	$7^h\ 21^m$	+27° 54′	$7^h\ 23^m$	+8° 24′	$7^h\ 24^m$	+68° 35′	$7^h\ 25^m$	+31° 54′
	s	″	s	″	s	″	s	″
Jan. 1	58.858 144	64.33 13	52.800 128	39.03 110	37.91 27	22.01 239	13.916 153	15.79 38
11	11 59.002 89	64.46 28	12 52.928 78	37.93 94	12 38.18 14	24.40 251	12 14.069 97	16.17 53
20	59.091 33	64.74 41	53.006 28	36.99 78	38.32 1	26.91 254	14.166 37	16.70 65
30	59.124 23	65.15 50	53.034 22	36.21 60	38.33 12	29.45 245	14.203 22	17.35 73
Febr. 9	59.101 76	65.65 54	53.012 68	35.61 44	38.21 23	31.90 228	14.181 75	18.08 76
19	59.025 120	66.19 56	52.944 109	35.17 29	37.98 34	34.18 201	14.106 122	18.84 74
März 1	58.905 156	66.75 52	52.835 140	34.88 15	37.64 42	36.19 165	13.984 161	19.58 67
11	58.749 182	67.27 45	52.695 162	34.73 3	37.22 49	37.84 123	13.823 188	20.25 57
21	58.567 196	67.72 36	52.533 175	34.70 7	36.73 52	39.07 76	13.635 203	20.82 44
31	58.371 198	68.08 24	52.358 177	34.77 15	36.21 53	39.83 28	13.432 206	21.26 29
Apr. 10	58.173 190	68.32 12	52.181 169	34.92 23	35.68 52	40.11 22	13.226 198	21.55 12
20	57.983 171	68.44 0	52.012 154	35.15 31	35.16 48	39.89 69	13.028 180	21.67 5
30	57.812 145	68.44 12	51.858 130	35.46 38	34.68 43	39.20 114	12.848 153	21.62 19
Mai 10	57.667 112	68.32 21	51.728 101	35.84 44	34.25 36	38.06 154	12.695 119	21.43 33
20	57.555 74	68.11 30	51.627 69	36.28 51	33.89 27	36.52 187	12.576 81	21.10 45
30	57.481 35	67.81 37	51.558 33	36.79 56	33.62 18	34.65 216	12.495 40	20.65 55
Juni 9	57.446 7	67.44 42	51.525 3	37.35 60	33.44 8	32.49 238	12.455 3	20.10 62
19	57.453 47	67.02 45	51.528 38	37.95 63	33.36 2	30.11 252	12.458 45	19.48 67
29	57.500 87	66.57 49	51.566 73	38.58 65	33.38 12	27.59 261	12.503 86	18.81 72
Juli 9	57.587 124	66.08 51	51.639 106	39.23 63	33.50 21	24.98 262	12.589 125	18.09 75
19	57.711 158	65.57 53	51.745 137	39.86 59	33.71 30	22.36 259	12.714 161	17.34 76
29	57.869 189	65.04 56	51.882 165	40.45 52	34.01 38	19.77 250	12.875 193	16.58 78
Aug. 8	58.058 218	64.48 58	52.047 190	40.97 41	34.39 46	17.27 236	13.068 224	15.80 79
18	58.276 243	63.90 61	52.237 213	41.38 28	34.85 53	14.91 218	13.292 250	15.01 81
28	58.519 266	63.29 65	52.450 235	41.66 10	35.38 60	12.73 194	13.542 275	14.20 81
Sept. 7	58.785 286	62.64 68	52.685 253	41.76 9	35.98 64	10.79 168	13.817 295	13.39 82
17	59.071 302	61.96 72	52.938 268	41.67 31	36.62 68	9.11 138	14.112 313	12.57 83
27	59.373 316	61.24 75	53.206 282	41.36 52	37.30 72	7.73 105	14.425 328	11.74 81
Okt. 7	59.689 327	60.49 77	53.488 291	40.84 74	38.02 74	6.68 69	14.753 339	10.93 79
17	60.016 332	59.72 76	53.779 297	40.10 94	38.76 74	5.99 30	15.092 345	10.14 74
27	60.348 333	58.96 72	54.076 298	39.16 111	39.50 74	5.69 10	15.437 347	9.40 66
Nov. 6	60.681 327	58.24 67	54.374 292	38.05 124	40.24 71	5.79 51	15.784 340	8.74 56
16	61.008 313	57.57 56	54.666 280	36.81 133	40.95 68	6.30 93	16.124 327	8.18 43
26	61.321 291	57.01 44	54.946 260	35.48 136	41.63 61	7.23 133	16.451 305	7.75 26
Dez. 6	61.612 260	56.57 29	55.206 233	34.12 133	42.24 54	8.56 171	16.756 273	7.49 9
16	61.872 221	56.28 12	55.439 197	32.79 127	42.78 45	10.27 203	17.029 232	7.40 11
26	62.093 175	56.16 5	55.636 155	31.52 116	43.23 34	12.30 228	17.261 185	7.51 29
36	62.268	56.21	55.791	30.36	43.57	14.58	17.446	7.80
Mittl. Ort	56.486	75.86	50.651	49.42	33.11	34.96	11.478	27.69
sec δ, tg δ	1.132	+0.530	1.011	+0.148	2.740	+2.551	1.178	+0.623
a, *a′*	+3.7	−7.0	+3.3	−7.2	+6.3	−7.2	+3.8	−7.3
b, *b′*	−0.01	−0.94	0.00	−0.93	−0.06	−0.93	−0.02	−0.93

Tag	287) α Geminorum[1] AR.	287) α Geminorum[1] Dekl.	289) 25 Monocerotis AR.	289) 25 Monocerotis Dekl.	291) α Canis min.[2] AR.	291) α Canis min.[2] Dekl.	292) 24 Lyncis AR.	292) 24 Lyncis Dekl.
1939	7h 30m	+32° 1′	7h 34m	−3° 58′	7h 36m	+5° 22′	7h 37m	+58° 50′
Jan. 1	45.028 159	16.29 35	16.850 129	33.77 185	8.766 132	46.85 134	54.955 234	65.27 187
11	45.187 102	16.64 52	16.979 80	35.62 171	8.898 84	45.51 118	55.189 144	67.14 204
20	(14) 45.289 42	17.16 65	(15) 17.059 30	37.33 152	(15) 8.982 33	44.33 100	(15) 55.333 51	69.18 212
30	45.331 16	17.81 73	17.089 20	38.85 130	9.015 17	43.33 81	55.384 41	71.30 211
Febr. 9	45.315 70	18.54 78	17.069 65	40.15 108	8.998 63	42.52 62	55.343 128	73.41 201
19	45.245 119	19.32 76	17.004 105	41.23 84	8.935 104	41.90 44	55.215 206	75.42 183
März 1	45.126 158	20.08 70	16.899 137	42.07 61	8.831 136	41.46 27	55.009 270	77.25 157
11	44.968 186	20.78 60	16.762 160	42.68 39	8.695 160	41.19 13	54.739 318	78.82 124
21	44.782 202	21.38 47	16.602 174	43.07 16	8.535 173	41.06 0	54.421 349	80.06 86
31	44.580 207	21.85 31	16.428 177	43.23 5	8.362 176	41.06 13	54.072 360	80.92 45
Apr. 10	44.373 200	22.16 15	16.251 172	43.18 24	8.186 170	41.19 24	53.712 353	81.37 3
20	44.173 182	22.31 2	16.079 158	42.94 43	8.016 156	41.43 33	53.359 331	81.40 38
30	43.991 156	22.29 17	15.921 137	42.51 62	7.860 134	41.76 42	53.028 295	81.02 77
Mai 10	43.835 124	22.12 32	15.784 110	41.89 78	7.726 107	42.18 51	52.733 245	80.25 112
20	43.711 86	21.80 44	15.674 80	41.11 93	7.619 76	42.69 58	52.488 188	79.13 145
30	43.625 45	21.36 54	15.594 48	40.18 107	7.543 42	43.27 65	52.300 124	77.68 170
Juni 9	43.580 3	20.82 63	15.546 13	39.11 118	7.501 6	43.92 71	52.176 57	75.98 192
19	43.577 38	20.19 69	15.533 22	37.93 125	7.495 28	44.63 74	52.119 12	74.06 208
29	43.615 79	19.50 74	15.555 55	36.68 129	7.523 62	45.37 75	52.131 80	71.98 218
Juli 9	43.694 118	18.76 78	15.610 88	35.39 130	7.585 94	46.12 74	52.211 146	69.80 223
19	43.812 155	17.98 80	15.698 119	34.09 125	7.679 125	46.86 69	52.357 208	67.57 224
29	43.967 188	17.18 82	15.817 147	32.84 116	7.804 154	47.55 61	52.565 267	65.33 220
Aug. 8	44.155 217	16.36 84	15.964 174	31.68 102	7.958 179	48.16 49	52.832 320	63.13 212
18	44.372 245	15.52 85	16.138 198	30.66 82	8.137 203	48.65 33	53.152 369	61.01 200
28	44.617 270	14.67 87	16.336 220	29.84 57	8.340 225	48.98 15	53.521 413	59.01 185
Sept. 7	44.887 291	13.80 87	16.556 241	29.27 30	8.565 244	49.13 8	53.934 450	57.16 167
17	45.178 310	12.93 88	16.797 259	28.97 2	8.809 261	49.05 31	54.384 483	55.49 145
27	45.488 326	12.05 87	17.056 273	28.99 35	9.070 275	48.74 55	54.867 509	54.04 120
Okt. 7	45.814 338	11.18 85	17.329 284	29.34 69	9.345 287	48.19 81	55.376 528	52.84 92
17	46.152 345	10.33 80	17.613 292	30.03 101	9.632 293	47.38 104	55.904 539	51.92 62
27	46.497 348	9.53 72	17.905 293	31.04 131	9.925 295	46.34 123	56.443 541	51.30 28
Nov. 6	46.845 342	8.81 61	18.198 289	32.35 156	10.220 292	45.11 140	56.984 531	51.02 7
16	47.187 330	8.20 47	18.487 278	33.91 176	10.512 280	43.71 151	57.515 509	51.09 44
26	47.517 308	7.73 31	18.765 258	35.67 190	10.792 262	42.20 156	58.024 473	51.53 80
Dez. 6	47.825 277	7.42 12	19.023 231	37.57 196	11.054 234	40.64 157	58.497 424	52.33 115
16	48.102 238	7.30 7	19.254 197	39.53 196	11.288 201	39.07 150	58.921 360	53.48 148
26	48.340 190	7.37 26	19.451 155	41.49 190	11.489 159	37.57 140	59.281 284	54.96 175
36	48.530	7.63	19.606	43.39	11.648	36.17	59.565	56.71
Mittl. Ort	42.605	28.50	14.757	24.25	6.649	57.33	51.449	79.20
sec δ, tg δ	1.180	+0.625	1.002	−0.069	1.004	+0.094	1.934	+1.655
a, a'	+3.8	−7.7	+3.0	−8.0	+3.2	−8.2	+5.1	−8.3
b, b'	−0.02	−0.92	0.00	−0.92	0.00	−0.91	−0.05	−0.91

[1]) AR. der Mitte, Dekl. des folgenden, helleren Sterns.

[2]) Ort des hellen Sterns; die jährliche Parallaxe (0″.312) ist bereits berücksichtigt.

Scheinbare Sternörter 1939

Tag	294) κ Geminorum AR.		Dekl.		295) β Geminorum[1]) AR.		Dekl.		297) ζ Volantis AR.		Dekl.		296) π Geminorum AR.		Dekl.	
1939	7^h 40^m		+24° 32′		7^h 41^m		+28° 10′		7^h 42^m		−72° 27′		7^h 43^m		+33° 33′	
Jan. 1	48.374	160	33.05	15	37.525	163	18.05	8	39.54	9	39.23	383	37.106	176	48.57	40
11	48.534	107	32.90	3	37.688	108	18.13	25	39.63	4	43.06	380	37.282	118	48.97	59
20	^{16}48.641	52	32.93	19	^{16}37.796	51	18.38	41	^{17}39.59	19	46.86	368	^{17}37.400	58	49.56	73
30	48.693	4	33.12	31	37.847	5	18.79	53	39.40	32	50.54	346	37.458	3	50.29	84
Febr. 9	48.689	56	33.43	41	37.842	60	19.32	61	39.08	44	54.00	316	37.455	59	51.13	88
19	48.633	102	33.84	46	37.782	107	19.93	63	38.64	54	57.16	279	37.396	109	52.01	88
März 1	48.531	139	34.30	48	37.675	145	20.56	61	38.10	62	59.95	236	37.287	151	52.89	83
11	48.392	166	34.78	45	37.530	174	21.17	56	37.48	69	62.31	188	37.136	182	53.72	72
21	48.226	184	35.23	40	37.356	191	21.73	47	36.79	74	64.19	138	36.954	202	54.44	58
31	48.042	189	35.63	33	37.165	198	22.20	36	36.05	75	65.57	85	36.752	208	55.02	41
Apr. 10	47.853	185	35.96	24	36.967	192	22.56	24	35.30	75	66.42	32	36.544	203	55.43	23
20	47.668	170	36.20	15	36.775	177	22.80	10	34.55	74	66.74	22	36.341	189	55.66	5
30	47.498	147	36.35	5	36.598	154	22.90	3	33.81	70	66.52	74	36.152	165	55.71	13
Mai 10	47.351	118	36.40	3	36.444	124	22.87	14	33.11	64	65.78	124	35.987	134	55.58	30
20	47.233	84	36.37	11	36.320	89	22.73	25	32.47	58	64.54	172	35.853	98	55.28	45
30	47.149	48	36.26	18	36.231	51	22.48	35	31.89	49	62.82	215	35.755	57	54.83	58
Juni 9	47.101	10	36.08	23	36.180	12	22.13	42	31.40	40	60.67	251	35.698	16	54.25	69
19	47.091	28	35.85	28	36.168	28	21.71	48	31.00	29	58.16	282	35.682	25	53.56	77
29	47.119	66	35.57	32	36.196	66	21.23	53	30.71	18	55.34	305	35.707	66	52.79	84
Juli 9	47.185	102	35.25	35	36.262	103	20.70	58	30.53	7	52.29	318	35.773	105	51.95	89
19	47.287	135	34.90	40	36.365	139	20.12	62	30.46	6	49.11	322	35.878	142	51.06	93
29	47.422	166	34.50	45	36.504	170	19.50	66	30.52	18	45.89	317	36.020	177	50.13	97
Aug. 8	47.588	194	34.05	50	36.674	199	18.84	70	30.70	30	42.72	300	36.197	209	49.16	99
18	47.782	221	33.55	57	36.873	227	18.14	74	31.00	41	39.72	273	36.406	237	48.17	101
28	48.003	245	32.98	63	37.100	252	17.40	79	31.41	51	36.99	236	36.643	263	47.16	102
Sept. 7	48.248	266	32.35	71	37.352	273	16.61	83	31.92	60	34.63	190	36.906	288	46.14	103
17	48.514	285	31.64	78	37.625	292	15.78	88	32.52	68	32.73	136	37.194	308	45.11	102
27	48.799	302	30.86	85	37.917	310	14.90	91	33.20	73	31.37	75	37.502	326	44.09	100
Okt. 7	49.101	315	30.01	91	38.227	323	13.99	93	33.93	77	30.62	9	37.828	341	43.09	97
17	49.416	324	29.10	93	38.550	332	13.06	92	34.70	77	30.53	57	38.169	351	42.12	91
27	49.740	327	28.17	94	38.882	336	12.14	87	35.47	76	31.10	122	38.520	355	41.21	81
Nov. 6	50.067	325	27.23	90	39.218	333	11.27	81	36.23	71	32.32	186	38.875	352	40.40	68
16	50.392	315	26.33	83	39.551	322	10.46	71	36.94	65	34.18	243	39.227	342	39.72	53
26	50.707	296	25.50	72	39.873	303	9.75	56	37.59	56	36.61	291	39.569	322	39.19	35
Dez. 6	51.003	269	24.78	59	40.176	275	9.19	40	38.15	44	39.52	330	39.891	293	38.84	13
16	51.272	233	24.19	42	40.451	238	8.79	21	38.59	32	42.82	359	40.184	254	38.71	9
26	51.505	189	23.77	23	40.689	193	8.58	1	38.91	18	46.41	375	40.438	207	38.80	29
36	51.694		23.54		40.882		8.57		39.09		50.16		40.645		39.09	
Mittl. Ort	46.107		45.23		35.205		30.54		34.75		35.86		34.697		61.58	
sec δ, tg δ	1.099		+0.457		1.134		+0.536		3.319		−3.164		1.200		+0.664	
a, *a′*	+3.6		−8.5		+3.7		−8.6		−0.7		−8.7		+3.9		−8.8	
b, *b′*	−0.01		−0.90		−0.02		−0.90		+0.09		−0.90		−0.02		−0.90	

[1]) Die jährliche Parallaxe (0.″101) ist bereits berücksichtigt.

Tag	300) Grb 1374 AR.		300) Grb 1374 Dekl.		303) χ Argus AR.		303) χ Argus Dekl.	
1939	7h 52m		+74° 4′		7h 55m		−52° 49′	
Jan. 1	61.75	42	47.02	248	16.549	131	8.38	374
11	62.17	25	49.50	267	[20] 16.680	56	12.12	370
20*)	[19] 62.42	8	52.17	276	16.736	19	15.82	357
30	62.50	8	54.93	274	16.717	91	19.39	335
Febr. 9	62.42	24	57.67	261	16.626	157	22.74	304
19	62.18	39	60.28	237	16.469	216	25.78	267
März 1	61.79	52	62.65	203	16.253	265	28.45	225
11	61.27	61	64.68	162	15.988	301	30.70	179
21	60.66	67	66.30	114	15.687	326	32.49	130
31	59.99	71	67.44	64	15.361	338	33.79	79
Apr. 10	59.28	72	68.08	11	15.023	339	34.58	28
20	58.56	69	68.19	43	14.684	329	34.86	23
30	57.87	63	67.76	93	14.355	309	34.63	73
Mai 10	57.24	55	66.83	139	14.046	280	33.90	121
20	56.69	46	65.44	180	13.766	243	32.69	165
30	56.23	35	63.64	216	13.523	200	31.04	205
Juni 9	55.88	23	61.48	245	13.323	153	28.99	241
19	55.65	10	59.03	267	13.170	102	26.58	269
29	55.55	3	56.36	281	13.068	48	23.89	290
Juli 9	55.58	15	53.55	290	13.020	7	20.99	303
19	55.73	28	50.65	291	13.027	63	17.96	307
29	56.01	40	47.74	287	13.090	120	14.89	300
Aug. 8	56.41	50	44.87	277	13.210	174	11.89	284
18	56.91	60	42.10	261	13.384	226	9.05	258
28	57.51	70	39.49	239	13.610	275	6.47	221
Sept. 7	58.21	78	37.10	213	13.885	319	4.26	177
17	58.99	85	34.97	183	14.204	358	2.49	123
27	59.84	90	33.14	149	14.562	388	1.26	65
Okt. 7	60.74	94	31.65	110	14.950	411	0.61	2
17	61.68	96	30.55	68	15.361	422	0.59	63
27	62.64	97	29.87	24	15.783	422	1.22	126
Nov. 6	63.61	95	29.63	23	16.205	410	2.48	187
16	64.56	92	29.86	70	16.615	386	4.35	242
26	65.48	85	30.56	117	17.001	349	6.77	288
Dez. 6	66.33	75	31.73	161	17.350	300	9.65	326
16	67.08	64	33.34	200	17.650	241	12.91	352
26	67.72	51	35.34	234	17.891	173	16.43	367
36	68.23		37.68		18.064		20.10	
Mittl. Ort	56.02		62.51		13.741		4.45	
sec δ, tg δ	3.647		+3.507		1.655		−1.318	
a, *a′*	+7.2		−9.5		+1.5		−9.7	
b, *b′*	−0.11		−0.88		+0.04		−0.88	

Tag	305) χ Geminorum AR.		305) χ Geminorum Dekl.		306) ζ Argus AR.		306) ζ Argus Dekl.	
1939	7h 59m		+27° 57′		8h 1m		−39° 49′	
Jan. 1	48.803	184	47.55	2	28.724	141	54.48	345
11	48.987	131	47.53	20	28.865	81	57.93	340
20*)	[21] 49.118	73	47.73	37	[21] 28.946	19	61.33	326
30	49.191	15	48.10	52	28.965	40	64.59	304
Febr. 9	49.206	39	48.62	62	28.925	96	67.63	273
19	49.167	88	49.24	67	28.829	145	70.36	238
März 1	49.079	129	49.91	68	28.684	187	72.74	199
11	48.950	161	50.59	65	28.497	217	74.73	157
21	48.789	182	51.24	57	28.280	239	76.30	112
31	48.607	191	51.81	47	28.041	249	77.42	66
Apr. 10	48.416	190	52.28	34	27.792	249	78.08	19
20	48.226	179	52.62	21	27.543	241	78.27	26
30	48.047	159	52.83	7	27.302	224	78.01	70
Mai 10	47.888	132	52.90	6	27.078	199	77.31	113
20	47.756	100	52.84	17	26.879	170	76.18	153
30	47.656	65	52.67	28	26.709	135	74.65	188
Juni 9	47.591	28	52.39	38	26.574	98	72.77	218
19	47.563	10	52.01	46	26.476	57	70.59	244
29	47.573	47	51.55	53	26.419	16	68.15	262
Juli 9	47.620	84	51.02	60	26.403	26	65.53	272
19	47.704	119	50.42	66	26.429	69	62.81	275
29	47.823	151	49.76	72	26.498	111	60.06	267
Aug. 8	47.974	181	49.04	77	26.609	151	57.39	252
18	48.155	209	48.27	83	26.760	190	54.87	227
28	48.364	236	47.44	90	26.950	227	52.60	193
Sept. 7	48.600	260	46.54	96	27.177	261	50.67	150
17	48.860	283	45.58	100	27.438	292	49.17	101
27	49.143	302	44.58	105	27.730	316	48.16	47
Okt. 7	49.445	318	43.53	108	28.046	336	47.69	11
17	49.763	331	42.45	107	28.382	349	47.80	71
27	50.094	339	41.38	103	28.731	352	48.51	129
Nov. 6	50.433	339	40.35	97	29.083	347	49.80	185
16	50.772	332	39.38	86	29.430	332	51.65	233
26	51.104	316	38.52	71	29.762	307	53.98	275
Dez. 6	51.420	291	37.81	53	30.069	271	56.73	307
16	51.711	256	37.28	33	30.340	227	59.80	330
26	51.967	213	36.95	12	30.567	174	63.10	341
36	52.180		36.83		30.741		66.51	
Mittl. Ort	46.551		60.85		26.337		49.54	
sec δ, tg δ	1.132		+0.531		1.302		−0.834	
a, *a′*	+3.7		−10.0		+2.1		−10.1	
b, *b′*	−0.02		−0.87		+0.03		−0.86	

*) Bei Stern 305) und 306) lies Jan. 21.

Tag	307) 27 Lyncis AR.	Δ	307) Dekl.	Δ	308) ι Navis AR.	Δ	308) Dekl.	Δ	309) γ Argus AR.	Δ	309) Dekl.	Δ	311) 20 Navis AR.	Δ	311) Dekl.	Δ
1939	$8^h\ 3^m$		$+51°\ 40'$		$8^h\ 4^m$		$-24°\ 7'$		$8^h\ 7^m$		$-47°\ 9'$		$8^h\ 10^m$		$-15°\ 36'$	
Jan. 1	55.623	244	48.35	136	58.880	148	45.38	291	41.703	150	25.82	364	33.834	158	19.76	254
11	55.867	171	49.71	159	59.028	97	48.29	281	41.853	83	29.46	361	33.992	108	22.30	242
21	$_{22}$56.038	93	51.30	175	$_{22}$59.125	44	51.10	265	$_{23}$41.936	15	33.07	349	$_{24}$34.100	57	24.72	225
30	56.131	13	53.05	183	59.169	10	53.75	243	41.951	51	36.56	329	34.157	6	26.97	204
Febr. 9	56.144	64	54.88	183	59.159	59	56.18	215	41.900	113	39.85	299	34.163	42	29.01	177
19	56.080	133	56.71	174	59.100	103	58.33	183	41.787	167	42.84	265	34.121	86	30.78	149
März 1	55.947	192	58.45	158	58.997	140	60.16	149	41.620	214	45.49	224	34.035	123	32.27	119
11	55.755	238	60.03	134	58.857	168	61.65	114	41.406	249	47.73	180	33.912	150	33.46	88
21	55.517	270	61.37	105	58.689	187	62.79	77	41.157	273	49.53	134	33.762	170	34.34	57
31	55.247	286	62.42	72	58.502	197	63.56	40	40.884	287	50.87	86	33.592	179	34.91	26
Apr. 10	54.961	287	63.14	36	58.305	196	63.96	3	40.597	289	51.73	36	33.413	179	35.17	3
20	54.674	275	63.50	0	58.109	187	63.99	32	40.308	282	52.09	13	33.234	171	35.14	32
30	54.399	250	63.50	35	57.922	172	63.67	66	40.026	266	51.96	60	33.063	157	34.82	60
Mai 10	54.149	214	63.15	69	57.750	150	63.01	100	39.760	241	51.36	107	32.906	136	34.22	87
20	53.935	171	62.46	99	57.600	123	62.01	129	39.519	210	50.29	151	32.770	110	33.35	110
30	53.764	122	61.47	125	57.477	93	60.72	157	39.309	174	48.78	190	32.660	81	32.25	132
Juni 9	53.642	70	60.22	149	57.384	60	59.15	180	39.135	134	46.88	224	32.579	51	30.93	150
19	53.572	16	58.73	168	57.324	27	57.35	197	39.001	89	44.64	253	32.528	19	29.43	164
29	53.556	39	57.05	182	57.297	8	55.38	211	38.912	43	42.11	274	32.509	13	27.79	173
Juli 9	53.595	93	55.23	192	57.305	43	53.27	217	38.869	5	39.37	288	32.522	46	26.06	178
19	53.688	143	53.31	198	57.348	77	51.10	217	38.874	53	36.49	293	32.568	78	24.28	177
29	53.831	192	51.33	201	57.425	111	48.93	209	38.927	102	33.56	287	32.646	109	22.51	169
Aug. 8	54.023	238	49.32	199	57.536	143	46.84	193	39.029	150	30.69	274	32.755	138	20.82	154
18	54.261	281	47.33	195	57.679	174	44.91	171	39.179	196	27.95	250	32.893	167	19.28	134
28	54.542	319	45.38	188	57.853	203	43.20	140	39.375	240	25.45	215	33.060	195	17.94	106
Sept. 7	54.861	354	43.50	177	58.056	230	41.80	104	39.615	280	23.30	174	33.255	220	16.88	74
17	55.215	386	41.73	164	58.286	255	40.76	61	39.895	315	21.56	123	33.475	244	16.14	36
27	55.601	414	40.09	146	58.541	277	40.15	14	40.210	346	20.33	67	33.719	265	15.78	5
Okt. 7	56.015	437	38.63	126	58.818	294	40.01	35	40.556	369	19.66	6	33.984	282	15.83	49
17	56.452	453	37.37	103	59.112	307	40.36	85	40.925	384	19.60	57	34.266	296	16.32	91
27	56.905	462	36.34	75	59.419	312	41.21	133	41.309	388	20.17	118	34.562	303	17.23	132
Nov. 6	57.367	461	35.59	46	59.731	311	42.54	177	41.697	382	21.35	178	34.865	304	18.55	170
16	57.828	451	35.13	12	60.042	302	44.31	216	42.079	366	23.13	231	35.169	297	20.25	201
26	58.279	428	35.01	22	60.344	284	46.47	248	42.445	336	25.44	277	35.466	281	22.26	227
Dez. 6	58.707	393	35.23	57	60.628	256	48.95	270	42.781	296	28.21	315	35.747	257	24.53	244
16	59.100	344	35.80	90	60.884	219	51.65	285	43.077	246	31.36	340	36.004	224	26.97	254
26	59.444	285	36.70	122	61.103	177	54.50	290	43.323	187	34.76	357	36.228	184	29.51	254
36	59.729		37.92		61.280		57.40		43.510		38.33		36.412		32.05	
Mittl. Ort	52.744		63.88		56.738		38.62		39.120		22.05		31.767		11.95	
sec δ, tg δ	1.613		+1.266		1.096		−0.448		1.471		−1.078		1.038		−0.279	
a, a'	+4.5		−10.3		+2.6		−10.4		+1.9		−10.6		+2.8		−10.8	
b, b'	−0.04		−0.86		+0.02		−0.86		+0.04		−0.85		+0.01		−0.84	

Obere Kulmination Greenwich

Tag	310) Br 1147				312) β Cancri				314) 31 Lyncis				315) ε Argus			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	8h 11m		+75° 56′		8h 13m		+9° 22′		8h 18m		+43° 22′		8h 21m		−59° 18′	
	s		″		s		″		s		″		s		″	
Jan. 1	61.86	52	29.36	243	14.594	176	18.06	119	42.540	236	51.44	81	19.055	182	46.95	379
11	62.38	35	31.79	268	14.770	127	16.87	101	42.776	174	52.25	107	19.237	97	50.74	383
21	62.73	16	34.47	282	14.897	77	15.86	81	42.950	106	53.32	126	19.334	10	54.57	377
30	24 62.89	3	37.29	284	24 14.974	25	15.05	62	26 43.056	37	54.58	140	26 19.344	75	58.34	360
Febr. 9	62.86	22	40.13	275	14.999	25	14.43	43	43.093	30	55.98	147	19.269	154	61.94	336
19	62.64	38	42.88	255	14.974	69	14.00	25	43.063	92	57.45	146	19.115	226	65.30	303
März 1	62.26	54	45.43	225	14.905	107	13.75	9	42.971	144	58.91	139	18.889	286	68.33	264
11	61.72	65	47.68	185	14.798	137	13.66	3	42.827	186	60.30	123	18.603	335	70.97	221
21	61.07	74	49.53	138	14.661	156	13.69	15	42.641	216	61.53	103	18.268	370	73.18	173
31	60.33	80	50.91	88	14.505	166	13.84	23	42.425	232	62.56	79	17.898	392	74.91	123
Apr. 10	59.53	81	51.79	34	14.339	167	14.07	29	42.193	237	63.35	51	17.506	402	76.14	72
20	58.72	79	52.13	20	14.172	159	14.36	35	41.956	228	63.86	23	17.104	399	76.86	19
30	57.93	75	51.93	73	14.013	143	14.71	40	41.728	210	64.09	7	16.705	384	77.05	34
Mai 10	57.18	68	51.20	122	13.870	122	15.11	43	41.518	182	64.02	34	16.321	359	76.71	84
20	56.50	57	49.98	168	13.748	96	15.54	47	41.336	147	63.68	61	15.962	326	75.87	134
30	55.93	46	48.30	205	13.652	66	16.01	49	41.189	108	63.07	85	15.636	283	74.53	178
Juni 9	55.47	33	46.25	239	13.586	34	16.50	50	41.081	65	62.22	105	15.353	233	72.75	219
19	55.14	20	43.86	266	13.552	3	17.00	51	41.016	20	61.17	123	15.120	179	70.56	253
29	54.94	5	41.20	285	13.549	29	17.51	49	40.996	24	59.94	138	14.941	119	68.03	280
Juli 9	54.89	9	38.35	298	13.578	61	18.00	46	41.020	68	58.56	149	14.822	56	65.23	300
19	54.98	22	35.37	303	13.639	91	18.46	41	41.088	111	57.07	158	14.766	10	62.23	310
29	55.20	36	32.34	302	13.730	120	18.87	32	41.199	151	55.49	165	14.776	78	59.13	310
Aug. 8	55.56	49	29.32	296	13.850	147	19.19	21	41.350	190	53.84	168	14.854	145	56.03	301
18	56.05	61	26.36	282	13.997	174	19.40	8	41.540	227	52.16	169	14.999	211	53.02	280
28	56.66	72	23.54	263	14.171	199	19.48	9	41.767	261	50.47	169	15.210	275	50.22	250
Sept. 7	57.38	82	20.91	239	14.370	223	19.39	29	42.028	293	48.78	165	15.485	334	47.72	209
17	58.20	91	18.52	211	14.593	245	19.10	49	42.321	322	47.13	160	15.819	386	45.63	160
27	59.11	97	16.41	176	14.838	265	18.61	71	42.643	348	45.53	151	16.205	430	44.03	103
Okt. 7	60.08	103	14.65	138	15.103	282	17.90	92	42.991	372	44.02	139	16.635	465	43.00	41
17	61.11	107	13.27	96	15.385	296	16.98	111	43.363	389	42.63	123	17.100	485	42.59	25
27	62.18	108	12.31	50	15.681	305	15.87	128	43.752	401	41.40	105	17.585	494	42.84	90
Nov. 6	63.26	108	11.81	2	15.986	308	14.59	140	44.153	405	40.35	82	18.079	486	43.74	154
16	64.34	104	11.79	47	16.294	304	13.19	149	44.558	401	39.53	55	18.565	464	45.28	215
26	65.38	98	12.26	97	16.598	290	11.70	151	44.959	384	38.98	27	19.029	426	47.43	266
Dez. 6	66.36	89	13.23	145	16.888	270	10.19	147	45.343	357	38.71	4	19.455	373	50.09	311
16	67.25	77	14.68	189	17.158	239	8.72	140	45.700	319	38.75	36	19.828	307	53.20	345
26	68.02	62	16.57	226	17.397	201	7.32	127	46.019	269	39.11	66	20.135	231	56.65	368
36	68.64		18.83		17.598		6.05		46.288		39.77		20.366		60.33	
Mittl. Ort	55.84		46.45		12.552		29.49		40.060		67.22		15.890		45.35	
sec δ, tg δ	4.118		+3.995		1.014		+0.165		1.376		+0.945		1.959		−1.685	
a, a'	+7.6		−10.9		+3.3		−11.0		+4.1		−11.4		+1.2		−11.6	
b, b'	−0.14		− 0.84		−0.01		− 0.84		−0.04		− 0.82		+0.06		− 0.82	

Scheinbare Sternörter 1939

Tag	318) ϑ Chamael. AR.		318) ϑ Chamael. Dekl.		316) Br 1197 AR.		316) Br 1197 Dekl.		317) o Ursae maj. AR.		317) o Ursae maj. Dekl.		320) Grb 1450 AR.		320) Grb 1450 Dekl.	
1939	$8^h\ 22^m$		$-77°\ 17'$		$8^h\ 22^m$		$-3°\ 42'$		$8^h\ 25^m$		$+60°\ 54'$		$8^h\ 28^m$		$+38°\ 13'$	
Jan. 1	$36^s.46$	28	$18''.45$	375	$38^s.825$	175	$31''.69$	196	$16^s.12$	33	$69''.02$	170	$59^s.752$	234	$21''.95$	46
11	36.74	8	22.20	383	39.000	128	33.65	181	16.45	24	70.72	198	59.986	176	22.41	72
21	$_{27}$36.82	11	26.03	383	$_{27}$39.128	78	35.46	163	$_{27}$16.69	14	72.70	217	$_{28}$60.162	114	23.13	94
30	36.71	29	29.86	371	39.206	27	37.09	141	16.83	4	74.87	228	60.276	49	24.07	111
Febr. 9	36.42	45	33.57	350	39.233	22	38.50	118	16.87	5	77.15	229	60.325	13	25.18	122
19	35.97	61	37.07	322	39.211	65	39.68	94	16.82	15	79.44	220	60.312	71	26.40	125
März 1	35.36	75	40.29	286	39.146	103	40.62	71	16.67	22	81.64	201	60.241	122	27.65	123
11	34.61	85	43.15	245	39.043	133	41.33	47	16.45	29	83.65	174	60.119	162	28.88	114
21	33.76	93	45.60	200	38.910	152	41.80	25	16.16	34	85.39	139	59.957	191	30.02	99
31	32.83	98	47.60	150	38.758	164	42.05	5	15.82	37	86.78	101	59.766	208	31.01	81
Apr. 10	31.85	102	49.10	98	38.594	165	42.10	15	15.45	37	87.79	58	59.558	214	31.82	58
20	30.83	102	50.08	45	38.429	160	41.95	33	15.08	37	88.37	14	59.344	208	32.40	34
30	29.81	100	50.53	8	38.269	146	41.62	50	14.71	35	88.51	30	59.136	193	32.74	10
Mai 10	28.81	95	50.45	61	38.123	127	41.12	65	14.36	31	88.21	72	58.943	168	32.84	15
20	27.86	89	49.84	113	37.996	103	40.47	80	14.05	26	87.49	111	58.775	138	32.69	37
30	26.97	80	48.71	161	37.893	76	39.67	93	13.79	21	86.38	146	58.637	104	32.32	59
Juni 9	26.17	70	47.10	204	37.817	47	38.74	103	13.58	15	84.92	176	58.533	65	31.73	78
19	25.47	57	45.06	243	37.770	17	37.71	110	13.43	8	83.16	202	58.468	26	30.95	95
29	24.90	43	42.63	275	37.753	14	36.61	115	13.35	1	81.14	222	58.442	15	30.00	109
Juli 9	24.47	27	39.88	298	37.767	44	35.46	116	13.34	6	78.92	238	58.457	54	28.91	122
19	24.20	12	36.90	312	37.811	74	34.30	112	13.40	12	76.54	247	58.511	93	27.69	132
29	24.08	5	33.78	318	37.885	103	33.18	105	13.52	19	74.07	252	58.604	131	26.37	140
Aug. 8	24.13	23	30.60	312	37.988	131	32.13	92	13.71	25	71.55	252	58.735	166	24.97	146
18	24.36	39	27.48	296	38.119	159	31.21	74	13.96	30	69.03	247	58.901	200	23.51	151
28	24.75	54	24.52	268	38.278	185	30.47	52	14.26	36	66.56	238	59.101	232	22.00	154
Sept. 7	25.29	69	21.84	231	38.463	210	29.95	26	14.62	41	64.18	224	59.333	263	20.46	155
17	25.98	82	19.53	184	38.673	233	29.69	4	15.03	45	61.94	207	59.596	291	18.91	154
27	26.80	93	17.69	130	38.906	255	29.73	37	15.48	50	59.87	184	59.887	318	17.37	151
Okt. 7	27.73	99	16.39	68	39.161	273	30.10	69	15.98	53	58.03	158	60.205	341	15.86	145
17	28.72	104	15.71	3	39.434	289	30.79	101	16.51	55	56.45	126	60.546	360	14.41	134
27	29.76	105	15.68	64	39.723	299	31.80	132	17.06	57	55.19	92	60.906	374	13.07	121
Nov. 6	30.81	101	16.32	129	40.022	302	33.12	158	17.63	57	54.27	54	61.280	380	11.86	103
16	31.82	95	17.61	191	40.324	299	34.70	180	18.20	57	53.73	13	61.660	377	10.83	81
26	32.77	85	19.52	247	40.623	287	36.50	195	18.77	54	53.60	30	62.037	366	10.02	57
Dez. 6	33.62	71	21.99	295	40.910	267	38.45	203	19.31	50	53.90	73	62.403	342	9.45	28
16	34.33	57	24.94	332	41.177	237	40.48	205	19.81	45	54.63	114	62.745	308	9.17	1
26	34.90	38	28.26	360	41.414	199	42.53	199	20.26	38	55.77	152	63.053	265	9.18	30
36	35.28		31.86		41.613		44.52		20.64		57.29		63.318		9.48	
Mittl. Ort	30.16		18.39		36.825		22.21		12.86		86.59		57.456		37.72	
sec δ, tg δ	4.545		−4.433		1.002		−0.065		2.058		+1.798		1.273		+0.788	
a, a'	−1.7		−11.7		+3.0		−11.7		+5.0		−11.9		+3.9		−12.1	
b, b'	+0.17		− 0.81		0.00		− 0.81		−0.07		− 0.81		−0.03		− 0.80	

Tag	321) η Cancri AR.		321) η Cancri Dekl.		327) α Pyxidis AR.		327) α Pyxidis Dekl.		326) δ Cancri AR.		326) δ Cancri Dekl.		328) ι Cancri AR.		328) ι Cancri Dekl.	
1939	8ʰ 29ᵐ		+20° 38′		8ʰ 41ᵐ		−32° 57′		8ʰ 41ᵐ		+18° 22′		8ʰ 43ᵐ		+28° 58′	
	s		″		s		″		s		″		s		″	
Jan. 1	13.159	202	45.51	58	10.608	188	59.93	324	15.309	211	33.62	77	2.743	229	48.59	15
11	13.361	154	44.93	36	10.796	135	63.17	322	15.520	162	32.85	54	2.972	177	48.44	10
21	13.515	99	44.57	14	10.931	78	66.39	312	15.682	111	32.31	32	3.149	121	48.54	35
30*)	28 13.614	45	44.43	6	31 11.009	21	69.51	294	1 15.793	57	31.99	11	3.270	63	48.89	55
Febr. 9	13.659	8	44.49	22	11.030	33	72.45	269	15.850	4	31.88	8	3.333	6	49.44	72
19	13.651	56	44.71	36	10.997	82	75.14	240	15.854	45	31.96	24	3.339	47	50.16	82
März 1	13.595	99	45.07	45	10.915	126	77.54	205	15.809	88	32.20	36	3.292	94	50.98	88
11	13.496	133	45.52	50	10.789	161	79.59	167	15.721	122	32.56	44	3.198	132	51.86	88
21	13.363	155	46.02	51	10.628	185	81.26	129	15.599	147	33.00	47	3.066	160	52.74	83
31	13.208	170	46.53	50	10.443	202	82.55	88	15.452	161	33.47	49	2.906	178	53.57	73
Apr. 10	13.038	174	47.03	45	10.241	209	83.43	46	15.291	168	33.96	47	2.728	184	54.30	62
20	12.864	167	47.48	39	10.032	207	83.89	5	15.123	164	34.43	43	2.544	181	54.92	47
30	12.697	154	47.87	31	9.825	197	83.94	36	14.959	153	34.86	37	2.363	169	55.39	30
Mai 10	12.543	134	48.18	24	9.628	182	83.58	75	14.806	134	35.23	32	2.194	150	55.69	14
20	12.409	108	48.42	16	9.446	160	82.83	112	14.672	112	35.55	25	2.044	126	55.83	2
30	12.301	79	48.58	9	9.286	134	81.71	146	14.560	85	35.80	19	1.918	96	55.81	17
Juni 9	12.222	48	48.67	1	9.152	105	80.25	176	14.475	55	35.99	12	1.822	64	55.64	32
19	12.174	15	48.68	6	9.047	73	78.49	202	14.420	24	36.11	5	1.758	30	55.32	46
29	12.159	18	48.62	14	8.974	39	76.47	222	14.396	7	36.16	2	1.728	4	54.86	58
Juli 9	12.177	51	48.48	21	8.935	3	74.25	236	14.403	38	36.14	10	1.732	38	54.28	70
19	12.228	82	48.27	29	8.932	32	71.89	241	14.441	69	36.04	19	1.770	72	53.58	81
29	12.310	112	47.98	38	8.964	69	69.48	240	14.510	99	35.85	28	1.842	105	52.77	90
Aug. 8	12.422	142	47.60	48	9.033	106	67.08	230	14.609	128	35.57	39	1.947	136	51.87	100
18	12.564	171	47.12	59	9.139	143	64.78	211	14.737	156	35.18	51	2.083	167	50.87	110
28	12.735	198	46.53	71	9.282	178	62.67	184	14.893	184	34.67	64	2.250	197	49.77	118
Sept. 7	12.933	223	45.82	83	9.460	213	60.83	148	15.077	211	34.03	79	2.447	226	48.59	127
17	13.156	248	44.99	96	9.673	246	59.35	106	15.288	236	33.24	94	2.673	254	47.32	134
27	13.404	271	44.03	107	9.919	276	58.29	58	15.524	260	32.30	108	2.927	280	45.98	139
Okt. 7	13.675	292	42.96	118	10.195	301	57.71	5	15.784	283	31.22	120	3.207	303	44.59	142
17	13.967	308	41.78	126	10.496	321	57.66	50	16.067	301	30.02	132	3.510	323	43.17	142
27	14.275	321	40.52	131	10.817	334	58.16	104	16.368	316	28.70	139	3.833	338	41.75	138
Nov. 6	14.596	326	39.21	132	11.151	339	59.20	157	16.684	323	27.31	142	4.171	347	40.37	130
16	14.922	325	37.89	128	11.490	334	60.77	204	17.007	324	25.89	141	4.518	349	39.07	118
26	15.247	315	36.61	119	11.824	320	62.81	246	17.331	316	24.48	135	4.867	340	37.89	101
Dez. 6	15.562	296	35.42	107	12.144	295	65.27	279	17.647	298	23.13	123	5.207	321	36.88	80
16	15.858	266	34.35	89	12.439	260	68.06	303	17.945	272	21.90	108	5.528	293	36.08	56
26	16.124	228	33.46	69	12.699	217	71.09	316	18.217	235	20.82	88	5.821	256	35.52	29
36	16.352		32.77		12.916		74.25		18.452		19.94		6.077		35.23	
Mittl. Ort	11.103		58.92		8.410		55.88		13.317		46.96		0.667		63.68	
sec δ, tg δ	1.069		+0.377		1.192		−0.649		1.054		+0.332		1.143		+0.554	
a, a'	+3.5		−12.1		+2.4		−13.0		+3.4		−13.0		+3.6		−13.1	
b, b'	−0.02		−0.80		+0.03		−0.76		−0.01		−0.76		−0.02		−0.76	

*) Bei Stern 327), 326) und 328) lies Jan. 31.

Scheinbare Sternörter 1939

Tag	330) δ Argus AR.		330) δ Argus Dekl.		334) ζ Hydrae AR.		334) ζ Hydrae Dekl.	
1939	$8^h\ 43^m$		−54° 29′		$8^h\ 52^m$		+6° 10′	
	s		″		s		″	
Jan. 1	4.018	213	4.93	371	12.188	207	32.61	149
11	4.231	139	8.64	377	12.395	163	31.12	131
21	4.370	61	12.41	374	12.558	113	29.81	110
31	4.431	14	16.15	362	12.671	62	28.71	88
Febr. 9	4.417	88	19.77	339	12.733	11	27.83	66
19	4.329	154	23.16	311	12.744	35	27.17	44
März 1	4.175	211	26.27	275	12.709	76	26.73	25
11	3.964	259	29.02	234	12.633	109	26.48	7
21	3.705	295	31.36	189	12.524	134	26.41	7
31	3.410	318	33.25	141	12.390	150	26.48	19
Apr. 10	3.092	331	34.66	92	12.240	156	26.67	30
20	2.761	334	35.58	40	12.084	155	26.97	38
30	2.427	325	35.98	11	11.929	146	27.35	46
Mai 10	2.102	307	35.87	61	11.783	130	27.81	51
20	1.795	282	35.26	109	11.653	111	28.32	55
30	1.513	249	34.17	154	11.542	87	28.87	59
Juni 9	1.264	210	32.63	196	11.455	61	29.46	61
19	1.054	166	30.67	232	11.394	33	30.07	62
29	0.888	117	28.35	261	11.361	5	30.69	60
Juli 9	0.771	65	25.74	283	11.356	24	31.29	57
19	0.706	10	22.91	296	11.380	52	31.86	51
29	0.696	47	19.95	300	11.432	81	32.37	43
Aug. 8	0.743	105	16.95	294	11.513	109	32.80	30
18	0.848	164	14.01	278	11.622	136	33.10	15
28	1.012	220	11.23	251	11.758	164	33.25	3
Sept. 7	1.232	275	8.72	214	11.922	191	33.22	24
17	1.507	325	6.58	169	12.113	216	32.98	46
27	1.832	368	4.89	115	12.329	242	32.52	71
Okt. 7	2.200	405	3.74	56	12.571	265	31.81	96
17	2.605	431	3.18	8	12.836	285	30.85	118
27	3.036	446	3.26	72	13.121	300	29.67	139
Nov. 6	3.482	448	3.98	136	13.421	309	28.28	156
16	3.930	436	5.34	196	13.730	311	26.72	168
26	4.366	409	7.30	249	14.041	305	25.04	174
Dez. 6	4.775	370	9.79	295	14.346	289	23.30	173
16	5.145	317	12.74	332	14.635	265	21.57	168
26	5.462	254	16.06	357	14.900	231	19.89	157
36	5.716		19.63		15.131		18.32	
Mittl. Ort	1.173		4.22		10.280		43.85	
sec δ, tg δ	1.721		−1.401		1.006		+0.108	
a, *a′*	+1.7		−13.1		+3.2		−13.7	
b, *b′*	+0.06		− 0.76		0.00		− 0.73	

Tag	336) c Carinae AR.		336) c Carinae Dekl.		335) ι Ursae maj AR.		335) ι Ursae maj Dekl.	
1939	$8^h\ 53^m$		−60° 24′		$8^h\ 55^m$		+48° 16′	
	s		″		s		″	
Jan. 1	43.23	25	38.06	370	4.891	294	38.52	85
11	43.48	16	41.76	383	5.185	232	39.37	117
21	43.64	8	45.59	384	5.417	161	40.54	144
31	43.72	1	49.43	375	5.578	86	41.98	165
Febr. 9	43.71	10	53.18	356	5.664	13	43.63	177
19	43.61	17	56.74	330	5.677	57	45.40	181
März 1	43.44	24	60.04	297	5.620	119	47.21	177
11	43.20	30	63.01	258	5.501	172	48.98	163
21	42.90	34	65.59	213	5.329	212	50.61	144
31	42.56	38	67.72	166	5.117	240	52.05	118
Apr. 10	42.18	39	69.38	116	4.877	253	53.23	87
20	41.79	40	70.54	64	4.624	254	54.10	55
30	41.39	39	71.18	11	4.370	243	54.65	20
Mai 10	41.00	38	71.29	41	4.127	223	54.85	14
20	40.62	35	70.88	92	3.904	194	54.71	48
30	40.27	32	69.96	140	3.710	158	54.23	78
Juni 9	39.95	28	68.56	184	3.552	117	53.45	108
19	39.67	23	66.72	224	3.435	75	52.37	133
29	39.44	18	64.48	257	3.360	29	51.04	155
Juli 9	39.26	11	61.91	282	3.331	16	49.49	173
19	39.15	5	59.09	300	3.347	61	47.76	189
29	39.10	2	56.09	307	3.408	106	45.87	201
Aug. 8	39.12	9	53.02	305	3.514	150	43.86	208
18	39.21	16	49.97	293	3.664	192	41.78	213
28	39.37	23	47.04	268	3.856	232	39.65	215
Sept. 7	39.60	29	44.36	235	4.088	272	37.50	213
17	39.89	36	42.01	191	4.360	309	35.37	207
27	40.25	41	40.10	139	4.669	343	33.30	198
Okt. 7	40.66	46	38.71	80	5.012	376	31.32	184
17	41.12	49	37.91	16	5.388	402	29.48	166
27	41.61	52	37.75	50	5.790	423	27.82	143
Nov. 6	42.13	51	38.25	115	6.213	436	26.39	116
16	42.64	50	39.40	177	6.649	438	25.23	84
26	43.14	48	41.17	235	7.087	430	24.39	50
Dez. 6	43.62	43	43.52	285	7.517	409	23.89	12
16	44.05	36	46.37	325	7.926	375	23.77	27
26	44.41	30	49.62	355	8.301	328	24.04	64
36	44.71		53.17		8.629		24.68	
Mittl. Ort	40.04		38.79		2.519		56.75	
sec δ, tg δ	2.025		−1.761		1.503		+1.122	
a, *a′*	+1.4		−13.8		+4.2		−13.9	
b, *b′*	+0.08		− 0.73		−0.05		− 0.72	

Obere Kulmination Greenwich

Tag	337) α Cancri				339) 10 Ursae maj.				341) κ Ursae maj.				343) α Volantis			
	AR.	d	Dekl.	d	AR.	d	Dekl.	d	AR.	d	Dekl.	d	AR.	d	Dekl.	d
1939	$8^h\ 55^m$		$+12°\ 5'$		$8^h\ 56^m$		$+42°\ 0'$		$8^h\ 59^m$		$+47°\ 23'$		$9^h\ 1^m$		$-66°\ 9'$	
Jan. 1	11.136	216	29.60	118	43.558	273	74.23	50	30.596	297	38.41	77	33.02	29	6.84	369
11	11.352	170	28.42	97	43.831	215	74.73	81	30.893	235	39.18	110	33.31	20	10.53	385
21	11.522	120	27.45	74	44.046	152	75.54	109	31.128	166	40.28	139	33.51	9	14.38	390
31	11.642	68	26.71	52	44.198	85	76.63	130	31.294	94	41.67	160	33.60	1	18.28	384
Febr. 9	[4] 11.710	17	26.19	30	[4] 44.283	18	77.93	145	[5] 31.388	20	43.27	173	[6] 33.59	12	22.12	368
19	11.727	31	25.89	11	44.301	45	79.38	152	31.408	48	45.00	179	33.47	21	25.80	346
März 1	11.696	73	25.78	6	44.256	102	80.90	151	31.360	110	46.79	176	33.26	29	29.26	314
11	11.623	108	25.84	19	44.154	148	82.41	143	31.250	163	48.55	164	32.97	36	32.40	277
21	11.515	134	26.03	30	44.006	185	83.84	129	31.087	203	50.19	145	32.61	41	35.17	234
31	11.381	150	26.33	37	43.821	209	85.13	109	30.884	231	51.64	121	32.20	46	37.51	187
Apr. 10	11.231	158	26.70	41	43.612	221	86.22	84	30.653	245	52.85	92	31.74	48	39.38	137
20	11.073	157	27.11	44	43.391	221	87.06	57	30.408	247	53.77	60	31.26	50	40.75	85
30	10.916	147	27.55	45	43.170	212	87.63	28	30.161	237	54.37	26	30.76	50	41.60	32
Mai 10	10.769	133	28.00	45	42.958	193	87.91	1	29.924	219	54.63	8	30.26	48	41.92	22
20	10.636	113	28.45	43	42.765	167	87.90	29	29.705	190	54.55	41	29.78	46	41.70	75
30	10.523	88	28.88	42	42.598	135	87.61	57	29.515	157	54.14	72	29.32	42	40.95	125
Juni 9	10.435	63	29.30	39	42.463	99	87.04	81	29.358	117	53.42	101	28.90	37	39.70	171
19	10.372	34	29.69	35	42.364	61	86.23	104	29.241	76	52.41	126	28.53	31	37.99	214
29	10.338	5	30.04	30	42.303	22	85.19	124	29.165	33	51.15	149	28.22	25	35.85	250
Juli 9	10.333	23	30.34	25	42.281	19	83.95	141	29.132	12	49.66	168	27.97	18	33.35	279
19	10.356	53	30.59	16	42.300	59	82.54	155	29.144	56	47.98	183	27.79	10	30.56	299
29	10.409	81	30.75	7	42.359	97	80.99	168	29.200	100	46.15	196	27.69	1	27.57	311
Aug. 8	10.490	110	30.82	5	42.456	136	79.31	177	29.300	142	44.19	205	27.68	7	24.46	311
18	10.600	137	30.77	19	42.592	174	77.54	184	29.442	184	42.14	211	27.75	16	21.35	302
28	10.737	165	30.58	36	42.766	210	75.70	189	29.626	224	40.03	213	27.91	25	18.33	281
Sept. 7	10.902	193	30.22	53	42.976	245	73.81	190	29.850	263	37.90	213	28.16	33	15.52	250
17	11.095	219	29.69	73	43.221	279	71.91	189	30.113	301	35.77	208	28.49	41	13.02	208
27	11.314	245	28.96	93	43.500	310	70.02	185	30.414	335	33.69	199	28.90	49	10.94	157
Okt. 7	11.559	268	28.03	111	43.810	340	68.17	177	30.749	367	31.70	187	29.39	54	9.37	100
17	11.827	288	26.92	129	44.150	365	66.40	165	31.116	395	29.83	170	29.93	58	8.37	36
27	12.115	305	25.63	144	44.515	384	64.75	148	31.511	416	28.13	149	30.51	60	8.01	30
Nov. 6	12.420	315	24.19	154	44.899	397	63.27	126	31.927	430	26.64	122	31.11	62	8.31	97
16	12.735	318	22.65	159	45.296	400	62.01	101	32.357	434	25.42	91	31.73	60	9.28	161
26	13.053	312	21.06	160	45.696	394	61.00	72	32.791	427	24.51	57	32.33	56	10.89	221
Dez. 6	13.365	297	19.46	154	46.090	375	60.28	39	33.218	407	23.94	20	32.89	51	13.10	273
16	13.662	273	17.92	143	46.465	345	59.89	4	33.625	374	23.74	19	33.40	44	15.83	317
26	13.935	239	16.49	127	46.810	303	59.85	31	33.999	330	23.93	57	33.84	35	19.00	351
36	14.174		15.22		47.113		60.16		34.329		24.50		34.19		22.51	
Mittl. Ort	9.229		42.01		41.355		91.75		28.284		56.75		29.31		8.79	
sec δ, tg δ	1.023		+0.214		1.346		+0.901		1.477		+1.087		2.473		−2.262	
a, a'	+3.3		−13.9		+3.9		−14.0		+4.1		−14.1		+0.9		−14.3	
b, b'	−0.01		− 0.72		−0.04		− 0.72		−0.05		− 0.71		+0.11		− 0.70	

Scheinbare Sternörter 1939

Tag	344) σ² Ursae maj. AR.	Δ	344) Dekl.	Δ	345) λ Argus AR.	Δ	345) Dekl.	Δ	347) ϑ Hydrae AR.	Δ	347) Dekl.	Δ	348) β Argus AR.	Δ	348) Dekl.	Δ
1939	$9^h\ 5^m$		$+67°\ 22'$		$9^h\ 5^m$		$-43°\ 11'$		$9^h\ 11^m$		$+2°\ 33'$		$9^h\ 12^m$		$-69°\ 27'$	
Jan. 1	6.58	48	42.27	168	47.352	227	8.94	345	13.386	221	71.00	174	36.46	35	53.63	361
11	7.06	37	43.95	205	47.579	168	12.39	353	13.607	178	69.26	158	36.81	24	57.24	382
21	7.43	25	46.00	234	47.747	105	15.92	349	13.785	130	67.68	137	37.05	12	61.06	390
31	7.68	14	48.34	253	47.852	42	19.41	338	13.915	79	66.31	115	37.17	1	64.96	388
Febr. 9	7.82	1	50.87	262	47.894	19	22.79	318	13.994	29	65.16	91	37.18	12	68.84	376
19	7.83	11	53.49	259	47.875	76	25.97	291	14.023	17	64.25	67	37.06	22	72.60	356
März 1	7.72	21	56.08	246	47.799	126	28.88	258	14.006	60	63.58	46	36.84	31	76.16	328
11	7.51	31	58.54	222	47.673	168	31.46	222	13.946	94	63.12	26	36.53	40	79.44	292
21	7.20	38	60.76	190	47.505	200	33.68	180	13.852	121	62.86	8	36.13	46	82.36	252
31	6.82	44	62.66	150	47.305	224	35.48	137	13.731	138	62.78	8	35.67	52	84.88	206
Apr. 10	6.38	47	64.16	105	47.081	236	36.85	92	13.593	149	62.86	22	35.15	55	86.94	157
20	5.91	48	65.21	58	46.845	242	37.77	47	13.444	150	63.08	34	34.60	57	88.51	106
30	5.43	47	65.79	8	46.603	237	38.24	0	13.294	144	63.42	45	34.03	58	89.57	52
Mai 10	4.96	44	65.87	41	46.366	226	38.24	46	13.150	132	63.87	53	33.45	57	90.09	2
20	4.52	40	65.46	87	46.140	208	37.78	89	13.018	115	64.40	60	32.88	54	90.07	55
30	4.12	35	64.59	131	45.932	184	36.89	131	12.903	95	65.00	66	32.34	51	89.52	107
Juni 9	3.77	28	63.28	170	45.748	157	35.58	169	12.808	72	65.66	71	31.83	46	88.45	156
19	3.49	21	61.58	205	45.591	125	33.89	202	12.736	47	66.37	74	31.37	40	86.89	200
29	3.28	12	59.53	235	45.466	89	31.87	229	12.689	20	67.11	74	30.97	32	84.89	239
Juli 9	3.16	5	57.18	258	45.377	51	29.58	251	12.669	6	67.85	71	30.65	25	82.50	271
19	3.11	3	54.60	276	45.326	11	27.07	263	12.675	33	68.56	67	30.40	15	79.79	295
29	3.14	12	51.84	287	45.315	31	24.44	269	12.708	61	69.23	59	30.25	6	76.84	309
Aug. 8	3.26	19	48.97	294	45.346	75	21.75	265	12.769	89	69.82	46	30.19	4	73.75	314
18	3.45	28	46.03	294	45.421	120	19.10	251	12.858	117	70.28	32	30.23	15	70.61	309
28	3.73	35	43.09	289	45.541	164	16.59	227	12.975	146	70.60	12	30.38	25	67.52	290
Sept. 7	4.08	41	40.20	279	45.705	208	14.32	195	13.121	173	70.72	10	30.63	35	64.62	262
17	4.49	49	37.41	261	45.913	251	12.37	154	13.294	201	70.62	35	30.98	44	62.00	224
27	4.98	55	34.80	240	46.164	289	10.83	106	13.495	229	70.27	62	31.42	53	59.76	175
Okt. 7	5.53	60	32.40	213	46.453	323	9.77	51	13.724	255	69.65	89	31.95	60	58.01	119
17	6.13	65	30.27	179	46.776	351	9.26	8	13.979	277	68.76	115	32.55	65	56.82	57
27	6.78	68	28.48	141	47.127	370	9.34	68	14.256	295	67.61	140	33.20	69	56.25	9
Nov. 6	7.46	70	27.07	99	47.497	380	10.02	127	14.551	307	66.21	161	33.89	69	56.34	76
16	8.16	71	26.08	52	47.877	378	11.29	182	14.858	313	64.60	177	34.58	69	57.10	141
26	8.87	69	25.56	3	48.255	365	13.11	233	15.171	309	62.83	188	35.27	65	58.51	203
Dez. 6	9.56	65	25.53	47	48.620	340	15.44	275	15.480	297	60.95	191	35.92	59	60.54	258
16	10.21	60	26.00	97	48.960	304	18.19	309	15.777	275	59.04	189	36.51	51	63.12	305
26	10.81	53	26.97	143	49.264	258	21.28	333	16.052	243	57.15	180	37.02	42	66.17	342
36	11.34		28.40		49.522		24.61		16.295		55.35		37.44		69.59	
Mittl. Ort	3.24		62.77		44.988		7.88		11.547		81.47		32.33		56.72	
sec δ, tg δ	2.600		+2.400		1.372		−0.939		1.001		+0.045		2.851		−2.670	
a, a'	+5.3		−14.5		+2.2		−14.5		+3.1		−14.8		+0.7		−14.9	
b, b'	−0.12		−0.69		+0.05		−0.69		0.00		−0.67		+0.13		−0.67	

Tag	350) 83 Cancri AR.		350) Dekl.		352) 40 Lyncis AR.		352) Dekl.		353) ϰ Argus AR.		353) Dekl.		354) α Hydrae AR.		354) Dekl.	
1939	$9^h\ 15^m$		$+17°\ 57'$		$9^h\ 17^m$		$+34°\ 38'$		$9^h\ 20^m$		$-54°\ 44'$		$9^h\ 24^m$		$-8°\ 23'$	
	s		"		s		"		s		"		s		"	
Jan. 1	36.667	239	40.10	94	22.670	271	48.75	4	16.135	275	56.75	357	37.257	228	43.49	228
11	36.906	194	39.16	69	22.941	222	48.71	28	16.410	205	60.32	371	37.485	184	45.77	217
21	37.100	145	38.47	43	23.163	165	48.99	59	16.615	129	64.03	377	37.669	137	47.94	201
31	37.245	92	38.04	19	23.328	105	49.58	84	16.744	53	67.80	371	37.806	88	49.95	182
Febr. 9*)	9 37.337	38	37.85	4	23.433	44	50.42	105	16.797	21	71.51	356	37.894	37	51.77	158
19	37.375	11	37.89	23	10 23.477	14	51.47	118	10 16.776	91	75.07	333	12 37.931	10	53.35	132
März 1	37.364	57	38.12	38	23.463	67	52.65	126	16.685	153	78.40	304	37.921	51	54.67	107
11	37.307	94	38.50	50	23.396	112	53.91	126	16.532	207	81.44	268	37.870	87	55.74	81
21	37.213	124	39.00	57	23.284	147	55.17	120	16.325	249	84.12	228	37.783	115	56.55	55
31	37.089	145	39.57	59	23.137	172	56.37	109	16.076	282	86.40	183	37.668	135	57.10	32
Apr. 10	36.944	155	40.16	59	22.965	186	57.46	92	15.794	304	88.23	136	37.533	146	57.42	8
20	36.789	158	40.75	56	22.779	190	58.38	72	15.490	314	89.59	86	37.387	149	57.50	14
30	36.631	153	41.31	51	22.589	185	59.10	51	15.176	316	90.45	36	37.238	146	57.36	34
Mai 10	36.478	140	41.82	44	22.404	172	59.61	28	14.860	309	90.81	15	37.092	138	57.02	53
20	36.338	123	42.26	37	22.232	152	59.89	4	14.551	292	90.66	65	36.954	123	56.49	71
30	36.215	101	42.63	28	22.080	127	59.93	19	14.259	269	90.01	112	36.831	105	55.78	86
Juni 9	36.114	77	42.91	19	21.953	98	59.74	41	13.990	240	88.89	156	36.726	85	54.92	100
19	36.037	50	43.10	11	21.855	67	59.33	62	13.750	203	87.33	197	36.641	62	53.92	111
29	35.987	22	43.21	1	21.788	34	58.71	81	13.547	161	85.36	232	36.579	37	52.81	118
Juli 9	35.965	6	43.22	9	21.754	0	57.90	98	13.386	115	83.04	260	36.542	11	51.63	122
19	35.971	35	43.13	20	21.754	33	56.92	114	13.271	64	80.44	280	36.531	15	50.41	122
29	36.006	63	42.93	32	21.787	68	55.78	129	13.207	10	77.64	291	36.546	42	49.19	118
Aug. 8	36.069	93	42.61	45	21.855	102	54.49	142	13.197	48	74.73	293	36.588	71	48.01	107
18	36.162	121	42.16	59	21.957	136	53.07	153	13.245	107	71.80	285	36.659	100	46.94	92
28	36.283	150	41.57	73	22.093	169	51.54	163	13.352	167	68.95	267	36.759	130	46.02	72
Sept. 7	36.433	180	40.84	90	22.262	203	49.91	171	13.519	226	66.28	236	36.889	160	45.30	47
17	36.613	208	39.94	106	22.465	235	48.20	176	13.745	282	63.92	198	37.049	190	44.83	17
27	36.821	237	38.88	121	22.700	267	46.44	180	14.027	335	61.94	150	37.239	219	44.66	16
Okt. 7	37.058	264	37.67	136	22.967	297	44.64	180	14.362	382	60.44	95	37.458	247	44.82	51
17	37.322	287	36.31	149	23.264	324	42.84	176	14.744	418	59.49	34	37.705	272	45.33	88
27	37.609	307	34.82	157	23.588	346	41.08	168	15.162	444	59.15	29	37.977	292	46.21	122
Nov. 6	37.916	322	33.25	161	23.934	362	39.40	154	15.606	459	59.44	93	38.269	307	47.43	154
16	38.238	328	31.64	161	24.296	370	37.86	136	16.065	458	60.37	156	38.576	313	48.97	183
26	38.566	326	30.03	155	24.666	368	36.50	113	16.523	442	61.93	213	38.889	312	50.80	204
Dez. 6	38.892	314	28.48	143	25.034	356	35.37	85	16.965	412	64.06	264	39.201	300	52.84	219
16	39.206	293	27.05	127	25.390	332	34.52	55	17.377	369	66.70	306	39.501	279	55.03	228
26	39.499	262	25.78	106	25.722	297	33.97	22	17.746	312	69.76	338	39.780	248	57.31	229
36	39.761		24.72		26.019		33.75		18.058		73.14		40.028		59.60	
Mittl. Ort	34.829		53.93		20.720		65.86		13.372		58.48		35.433		35.73	
sec δ, tg δ	1.051		+0.324		1.216		+0.691		1.733		−1.415		1.011		−0.148	
a, a'	+3.4		−15.1		+3.7		−15.2		+1.9		−15.4		+2.9		−15.6	
b, b'	−0.02		− 0.66		−0.03		− 0.65		+0.07		− 0.64		+0.01		− 0.63	

*) Bei Stern 352), 353) und 354) lies Febr. 10.

Scheinbare Sternörter 1939

Tag	355) *h* Ursae maj.				359) ψ Argus				358) ϑ Ursae maj.				357) *d* Ursae maj.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$9^h\ 26^m$		$+63°\ 19'$		$9^h\ 28^m$		$-40°\ 11'$		$9^h\ 28^m$		$+51°\ 56'$		$9^h\ 29^m$		$+70°\ 5'$	
	s		"		s		"		s		"		s		"	
Jan. 1	47.30	45	26.74	131	19.929	248	56.21	332	49.596	350	63.07	75	10.77	57	38.23	156
11	47.75	37	28.05	172	20.177	195	59.53	341	49.946	288	63.82	115	11.34	46	39.79	199
21	48.12	27	29.77	207	20.372	137	62.94	341	50.234	216	64.97	149	11.80	34	41.78	234
31	48.39	17	31.84	232	20.509	76	66.35	331	50.450	140	66.46	176	12.14	21	44.12	259
Febr. 10	48.56	6	34.16	247	20.585	17	69.66	314	50.590	60	68.22	196	12.35	7	46.71	272
19	[12] 48.62	4	36.63	253	[12] 20.602	39	72.80	290	[13] 50.650	16	70.18	205	[13] 12.42	6	49.43	276
März 1	48.58	13	39.16	246	20.563	89	75.70	261	50.634	87	72.23	206	12.36	19	52.19	266
11	48.45	22	41.62	229	20.474	132	78.31	226	50.547	149	74.29	196	12.17	30	54.85	246
21	48.23	29	43.91	204	20.342	166	80.57	188	50.398	200	76.25	178	11.87	39	57.31	217
31	47.94	34	45.95	170	20.176	192	82.45	147	50.198	237	78.03	154	11.48	47	59.48	179
Apr. 10	47.60	38	47.65	131	19.984	208	83.92	105	49.961	261	79.57	124	11.01	51	61.27	135
20	47.22	40	48.96	86	19.776	216	84.97	62	49.700	272	80.81	88	10.50	54	62.62	86
30	46.82	39	49.82	40	19.560	216	85.59	17	49.428	271	81.69	51	9.96	54	63.48	36
Mai 10	46.43	38	50.22	6	19.344	209	85.76	26	49.157	258	82.20	13	9.42	53	63.84	15
20	46.05	35	50.16	53	19.135	197	85.50	68	48.899	235	82.33	26	8.89	49	63.69	66
30	45.70	30	49.63	96	18.938	178	84.82	109	48.664	205	82.07	64	8.40	44	63.03	113
Juni 9	45.40	26	48.67	138	18.760	156	83.73	146	48.459	170	81.43	98	7.96	37	61.90	157
19	45.14	20	47.29	174	18.604	128	82.27	180	48.289	129	80.45	130	7.59	30	60.33	196
29	44.94	14	45.55	206	18.476	99	80.47	208	48.160	85	79.15	159	7.29	22	58.37	231
Juli 9	44.80	7	43.49	234	18.377	65	78.39	231	48.075	40	77.56	184	7.07	13	56.06	259
19	44.73	1	41.15	256	18.312	30	76.08	246	48.035	7	75.72	206	6.94	4	53.47	281
29	44.72	6	38.59	272	18.282	9	73.62	253	48.042	54	73.66	222	6.90	5	50.66	299
Aug. 8	44.78	13	35.87	284	18.291	49	71.09	252	48.096	100	71.44	236	6.95	14	47.67	309
18	44.91	19	33.03	289	18.340	91	68.57	242	48.196	147	69.08	245	7.09	23	44.58	313
28	45.10	26	30.14	290	18.431	134	66.15	222	48.343	194	66.63	250	7.32	32	41.45	311
Sept. 7	45.36	32	27.24	285	18.565	177	63.93	194	48.537	240	64.13	251	7.64	40	38.34	304
17	45.68	38	24.39	274	18.742	220	61.99	156	48.777	284	61.62	248	8.04	49	35.30	290
27	46.06	44	21.65	258	18.962	260	60.43	111	49.061	326	59.14	239	8.53	56	32.40	270
Okt. 7	46.50	49	19.07	236	19.222	297	59.32	60	49.387	367	56.75	225	9.09	62	29.70	243
17	46.99	54	16.71	208	19.519	328	58.72	5	49.754	403	54.50	207	9.71	69	27.27	211
27	47.53	58	14.63	174	19.847	353	58.67	53	50.157	432	52.43	183	10.40	73	25.16	172
Nov. 6	48.11	60	12.89	136	20.200	367	59.20	110	50.589	455	50.60	153	11.13	77	23.44	129
16	48.71	61	11.53	91	20.567	372	60.30	165	51.044	466	49.07	118	11.90	78	22.15	81
26	49.32	62	10.62	44	20.939	366	61.95	215	51.510	466	47.89	80	12.68	78	21.34	29
Dez. 6	49.94	59	10.18	5	21.305	347	64.10	258	51.976	452	47.09	37	13.46	75	21.05	25
16	50.53	55	10.23	56	21.652	316	66.68	293	52.428	424	46.72	7	14.21	70	21.30	77
26	51.08	49	10.79	104	21.968	276	69.61	319	52.852	382	46.79	51	14.91	63	22.07	129
36	51.57		11.83		22.244		72.80		53.234		47.30		15.54		23.36	
Mittl. Ort	44.60		48.10		17.707		55.81		47.413		83.28		7.53		60.21	
sec δ, tg δ	2.228		+1.991		1.309		−0.845		1.623		+1.278		2.938		+2.762	
a, *a'*	+4.7		−15.7		+2.4		−15.8		+4.1		−15.8		+5.3		−15.9	
b, *b'*	−0.10		−0.62		+0.04		−0.61		−0.07		−0.61		−0.15		−0.61	

Tag	360) 10 Leonis min. AR.		Dekl.		366) ϑ Antliae AR.		Dekl.		367) ε Leonis AR.		Dekl.		369) υ Argus AR.		Dekl.	
1939	$9^h\ 30^m$		$+36°\ 39'$		$9^h\ 41^m$		$-27°\ 29'$		$9^h\ 42^m$		$+24°\ 2'$		$9^h\ 45^m$		$-64°\ 47'$	
Jan. 1	^{s} 31.525	290	$''$ 52.32	2	^{s} 30.809	247	$''$ 24.47	297	^{s} 25.317	270	$''$ 66.17	75	^{s} 38.07	38	$''$ 14.19	344
11	31.815	240	52.30	33	31.056	202	27.44	299	25.587	227	65.42	45	38.45	30	17.63	369
21	32.055	183	52.63	65	31.258	151	30.43	294	25.814	178	64.97	15	38.75	20	21.32	384
31	32.238	123	53.28	93	31.409	98	33.37	282	25.992	123	64.82	14	38.95	10	25.16	387
Febr. 10	32.361	61	54.21	115	31.507	45	36.19	263	26.115	69	64.96	39	39.05	0	29.03	381
	13				16				16				17			
19	32.422	0	55.36	131	31.552	5	38.82	239	26.184	17	65.35	59	39.05	8	32.84	367
März 1	32.422	54	56.67	139	31.547	51	41.21	211	26.201	33	65.94	76	38.97	17	36.51	343
11	32.368	102	58.06	140	31.496	90	43.32	179	26.168	75	66.70	86	38.80	24	39.94	312
21	32.266	140	59.46	135	31.406	122	45.11	146	26.093	109	67.56	90	38.56	31	43.06	276
31	32.126	168	60.81	122	31.284	146	46.57	111	25.984	135	68.46	90	38.25	36	45.82	235
Apr. 10	31.958	185	62.03	105	31.138	161	47.68	76	25.849	150	69.36	86	37.89	40	48.17	189
20	31.773	192	63.08	84	30.977	169	48.44	40	25.699	158	70.22	77	37.49	42	50.06	139
30	31.581	190	63.92	60	30.808	170	48.84	4	25.541	158	70.99	66	37.07	44	51.45	88
Mai 10	31.391	180	64.52	35	30.638	164	48.88	31	25.383	150	71.65	52	36.63	44	52.33	35
20	31.211	161	64.87	9	30.474	154	48.57	64	25.233	136	72.17	38	36.19	43	52.68	18
30	31.050	138	64.96	16	30.320	140	47.93	96	25.097	118	72.55	22	35.76	41	52.50	70
Juni 9	30.912	112	64.80	41	30.180	120	46.97	126	24.979	97	72.77	7	35.35	38	51.80	120
19	30.800	81	64.39	65	30.060	99	45.71	151	24.882	72	72.84	9	34.97	34	50.60	167
29	30.719	49	63.74	87	29.961	75	44.20	172	24.810	46	72.75	24	34.63	29	48.93	209
Juli 9	30.670	15	62.87	106	29.886	48	42.48	189	24.764	19	72.51	39	34.34	24	46.84	245
19	30.655	19	61.81	125	29.838	19	40.59	199	24.745	9	72.12	55	34.10	17	44.39	273
29	30.674	53	60.56	141	29.819	11	38.60	203	24.754	37	71.57	69	33.93	10	41.66	294
Aug. 8	30.727	87	59.15	156	29.830	44	36.57	200	24.791	67	70.88	85	33.83	1	38.72	304
18	30.814	122	57.59	168	29.874	79	34.57	189	24.858	98	70.03	100	33.82	6	35.68	305
28	30.936	158	55.91	179	29.953	114	32.68	170	24.956	128	69.03	116	33.88	15	32.63	294
Sept. 7	31.094	193	54.12	187	30.067	150	30.98	143	25.084	160	67.87	130	34.03	24	29.69	272
17	31.287	227	52.25	193	30.217	187	29.55	109	25.244	192	66.57	144	34.27	31	26.97	239
27	31.514	261	50.32	195	30.404	223	28.46	69	25.436	224	65.13	156	34.58	40	24.58	197
Okt. 7	31.775	294	48.37	195	30.627	256	27.77	25	25.660	254	63.57	167	34.98	47	22.61	145
17	32.069	323	46.42	190	30.883	286	27.52	24	25.914	283	61.90	175	35.45	52	21.16	87
27	32.392	348	44.52	180	31.169	311	27.76	74	26.197	308	60.15	178	35.97	57	20.29	24
Nov. 6	32.740	367	42.72	166	31.480	329	28.50	122	26.505	327	58.37	177	36.54	59	20.05	43
16	33.107	378	41.06	145	31.809	337	29.72	168	26.832	340	56.60	170	37.13	60	20.48	108
26	33.485	379	39.61	120	32.146	336	31.40	210	27.172	343	54.90	158	37.73	58	21.56	171
Dez. 6	33.864	369	38.41	90	32.482	325	33.50	243	27.515	336	53.32	140	38.31	55	23.27	229
16	34.233	347	37.51	57	32.807	302	35.93	270	27.851	318	51.92	118	38.86	50	25.56	279
26	34.580	314	36.94	22	33.109	269	38.63	287	28.169	291	50.74	91	39.36	43	28.35	321
36	34.894		36.72		33.378		41.50		28.460		49.83		39.79		31.56	
Mittl. Ort	29.640		70.17		28.867		21.86		23.599		81.67		34.68		19.05	
sec δ, tg δ	1.247		+0.745		1.127		−0.520		1.095		+0.446		2.348		−2.124	
a, *a'*	+3.7		−15.9		+2.7		−16.5		+3.4		−16.5		+1.5		−16.7	
b, *b'*	−0.04		−0.61		+0.03		−0.57		−0.02		−0.56		+0.12		−0.55	

Scheinbare Sternörter 1939

Tag	368) υ Ursae maj.				370) 6 Sextantis				372) Grb 1586				378) π Leonis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$9^h\ 46^m$		$+59°\ 18'$		$9^h\ 48^m$		$-3°\ 57'$		$9^h\ 52^m$		$+73°\ 9'$		$9^h\ 56^m$		$+8°\ 19'$	
	s		"		s		"		s		"		s		"	
Jan. 1	42.471	430	74.76	93	11.356	247	32.48	211	61.62	71	51.80	142	61.152	260	64.04	158
11	42.901	361	75.69	139	11.603	208	34.59	198	62.33	59	53.22	191	61.412	222	62.46	137
21	43.262	280	77.08	177	11.811	161	36.57	181	62.92	45	55.13	230	61.634	176	61.09	113
31	43.542	190	78.85	207	11.972	113	38.38	159	63.37	30	57.43	260	61.810	128	59.96	87
Febr. 10	43.732	98	80.92	229	12.085	64	39.97	136	63.67	15	60.03	281	61.938	77	59.09	61
19*)	[17] 43.830	6	83.21	240	[17] 12.149	17	41.33	111	[19] 63.82	0	62.84	288	[20] 62.015	29	58.48	37
März 1	43.836	81	85.61	241	12.166	27	42.44	86	63.82	16	65.72	284	62.044	15	58.11	15
11	43.755	158	88.02	231	12.139	64	43.30	62	63.66	29	68.56	267	62.029	55	57.96	6
21	43.597	223	90.33	212	12.075	95	43.92	39	63.37	41	71.23	241	61.974	87	58.02	21
31	43.374	275	92.45	184	11.980	117	44.31	17	62.96	51	73.64	206	61.887	111	58.23	34
Apr. 10	43.099	311	94.29	149	11.863	131	44.48	2	62.45	58	75.70	162	61.776	128	58.57	44
20	42.788	331	95.78	110	11.732	138	44.46	19	61.87	63	77.32	115	61.648	136	59.01	50
30	42.457	336	96.88	67	11.594	139	44.27	36	61.24	65	78.47	62	61.512	138	59.51	55
Mai 10	42.121	328	97.55	23	11.455	134	43.91	50	60.59	64	79.09	10	61.374	132	60.06	57
20	41.793	308	97.78	22	11.321	123	43.41	63	59.95	61	79.19	43	61.242	124	60.63	58
30	41.485	278	97.56	66	11.198	108	42.78	74	59.34	56	78.76	95	61.118	109	61.21	57
Juni 9	41.207	240	96.90	106	11.090	91	42.04	83	58.78	51	77.81	142	61.009	92	61.78	55
19	40.967	195	95.84	145	10.999	72	41.21	91	58.27	42	76.39	185	60.917	73	62.33	51
29	40.772	145	94.39	178	10.927	50	40.30	95	57.85	34	74.54	225	60.844	52	62.84	46
Juli 9	40.627	93	92.61	209	10.877	26	39.35	96	57.51	24	72.29	258	60.792	29	63.30	39
19	40.534	37	90.52	234	10.851	2	38.39	95	57.27	14	69.71	285	60.763	5	63.69	30
29	40.497	20	88.18	254	10.849	23	37.44	88	57.13	4	66.86	306	60.758	20	63.99	19
Aug. 8	40.517	77	85.64	271	10.872	50	36.56	79	57.09	7	63.80	322	60.778	47	64.18	7
18	40.594	134	82.93	280	10.922	79	35.77	64	57.16	17	60.58	330	60.825	74	64.25	9
28	40.728	192	80.13	286	11.001	108	35.13	45	57.33	28	57.28	331	60.899	104	64.16	28
Sept. 7	40.920	249	77.27	287	11.109	139	34.68	23	57.61	39	53.97	327	61.003	134	63.88	48
17	41.169	305	74.40	281	11.248	170	34.45	5	58.00	48	50.70	316	61.137	165	63.40	69
27	41.474	359	71.59	271	11.418	201	34.50	35	58.48	58	47.54	297	61.302	197	62.71	93
Okt. 7	41.833	410	68.88	253	11.619	232	34.85	66	59.06	67	44.57	273	61.499	228	61.78	116
17	42.243	457	66.35	231	11.851	260	35.51	98	59.73	75	41.84	241	61.727	257	60.62	137
27	42.700	495	64.04	202	12.111	284	36.49	128	60.48	81	39.43	203	61.984	282	59.25	157
Nov. 6	43.195	526	62.02	168	12.395	302	37.77	157	61.29	86	37.40	159	62.266	303	57.68	173
16	43.721	544	60.34	127	12.697	314	39.34	181	62.15	88	35.81	110	62.569	317	55.95	184
26	44.265	550	59.07	82	13.011	317	41.15	199	63.03	90	34.71	56	62.886	322	54.11	188
Dez. 6	44.815	538	58.25	33	13.328	309	43.14	210	63.93	89	34.15	0	63.208	318	52.23	188
16	45.353	510	57.92	16	13.637	292	45.24	216	64.82	84	34.15	57	63.526	303	50.35	180
26	45.863	466	58.08	66	13.929	267	47.40	213	65.66	76	34.72	112	63.829	278	48.55	167
36	46.329		58.74		14.196		49.53		66.42		35.84		64.107		46.88	
Mittl. Ort	40.239		96.58		9.647		24.04		58.50		75.05		59.524		75.67	
sec δ, tg δ	1.960		+1.686		1.002		−0.069		3.454		+3.306		1.011		+0.147	
a, a'	+4.3		−16.7		+3.0		−16.8		+5.4		−17.0		+3.2		−17.2	
b, b'	−0.09		− 0.55		0.00		− 0.54		−0.19		− 0.53		−0.01		− 0.51	

*) Bei Stern 378) lies Febr. 20.

Tag	379) η Leonis				380) α Leonis				381) λ Hydrae				382) q Velorum			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$10^h\ 4^m$		$+17°\ 3'$		$10^h\ 5^m$		$+12°\ 15'$		$10^h\ 7^m$		$-12°\ 3'$		$10^h\ 12^m$		$-41°\ 49'$	
	s		"		s		"		s		"		s		"	
Jan. 1	2.186	274	25.18	120	9.140	269	45.03	143	38.541	260	12.32	243	12.318	301	6.49	314
11	2.460	236	23.98	93	9.409	231	43.60	119	38.801	222	14.75	236	12.619	251	9.63	332
21	2.696	190	23.05	64	9.640	187	42.41	92	39.023	178	17.11	225	12.870	197	12.95	338
31	2.886	140	22.41	36	9.827	137	41.49	65	39.201	130	19.36	207	13.067	137	16.33	337
Febr. 10	3.026	89	22.05	8	9.964	87	40.84	38	39.331	80	21.43	186	13.204	78	19.70	327
20	$_{22}$3.115	38	21.97	17	$_{22}$10.051	38	40.46	13	$_{22}$39.411	33	23.29	162	$_{24}$13.282	21	22.97	309
März 1	3.153	9	22.14	38	10.089	8	40.33	9	39.444	11	24.91	135	13.303	33	26.06	285
11	3.144	51	22.52	53	10.081	48	40.42	27	39.433	50	26.26	109	13.270	80	28.91	257
21	3.093	85	23.05	65	10.033	82	40.69	42	39.383	81	27.35	83	13.190	120	31.48	223
31	3.008	111	23.70	72	9.951	108	41.11	52	39.302	106	28.18	57	13.070	153	33.71	186
Apr. 10	2.897	129	24.42	74	9.843	125	41.63	59	39.196	124	28.75	31	12.917	176	35.57	146
20	2.768	140	25.16	73	9.718	136	42.22	62	39.072	134	29.06	7	12.741	193	37.03	105
30	2.628	143	25.89	69	9.582	138	42.84	63	38.938	138	29.13	16	12.548	203	38.08	63
Mai 10	2.485	138	26.58	63	9.444	134	43.47	61	38.800	136	28.97	37	12.345	204	38.71	19
20	2.347	130	27.21	54	9.310	126	44.08	57	38.664	129	28.60	57	12.141	201	38.90	24
30	2.217	116	27.75	45	9.184	114	44.65	52	38.535	118	28.03	75	11.940	192	38.66	66
Juni 9	2.101	100	28.20	34	9.070	97	45.17	47	38.417	104	27.28	92	11.748	178	38.00	106
19	2.001	80	28.54	23	8.973	78	45.64	39	38.313	87	26.36	106	11.570	159	36.94	143
29	1.921	58	28.77	10	8.895	58	46.03	30	38.226	69	25.30	116	11.411	136	35.51	176
Juli 9	1.863	35	28.87	2	8.837	36	46.33	20	38.157	47	24.14	124	11.275	109	33.75	204
19	1.828	10	28.85	16	8.801	12	46.53	10	38.110	24	22.90	127	11.166	78	31.71	226
29	1.818	15	28.69	30	8.789	13	46.63	3	38.086	0	21.63	126	11.088	43	29.45	240
Aug. 8	1.833	42	28.39	46	8.802	40	46.60	18	38.086	28	20.37	119	11.045	5	27.05	246
18	1.875	71	27.93	62	8.842	67	46.42	34	38.114	57	19.18	107	11.040	38	24.59	245
28	1.946	101	27.31	80	8.909	97	46.08	52	38.171	87	18.11	90	11.078	82	22.14	233
Sept. 7	2.047	131	26.51	98	9.006	127	45.56	71	38.258	120	17.21	66	11.160	129	19.81	212
17	2.178	164	25.53	117	9.133	160	44.85	92	38.378	154	16.55	39	11.289	176	17.69	182
27	2.342	197	24.36	135	9.293	191	43.93	113	38.532	187	16.16	6	11.465	223	15.87	144
Okt. 7	2.539	229	23.01	151	9.484	224	42.80	133	38.719	221	16.10	30	11.688	268	14.43	98
17	2.768	260	21.50	167	9.708	255	41.47	151	38.940	253	16.40	67	11.956	309	13.45	46
27	3.028	287	19.83	177	9.963	281	39.96	168	39.193	280	17.07	104	12.265	343	12.99	10
Nov. 6	3.315	310	18.06	184	10.244	303	38.28	180	39.473	301	18.11	140	12.608	369	13.09	67
16	3.625	325	16.22	186	10.547	319	36.48	186	39.774	316	19.51	172	12.977	384	13.76	123
26	3.950	332	14.36	182	10.866	326	34.62	187	40.090	322	21.23	200	13.361	387	14.99	175
Dez. 6	4.282	329	12.54	171	11.192	323	32.75	182	40.412	317	23.23	221	13.748	379	16.74	224
16	4.611	316	10.83	155	11.515	310	30.93	171	40.729	303	25.44	234	14.127	357	18.98	265
26	4.927	293	9.28	134	11.825	287	29.22	154	41.032	279	27.78	240	14.484	324	21.63	297
36	5.220		7.94		12.112		27.68		41.311		30.18		14.808		24.60	
Mittl. Ort	0.602		39.10		7.560		57.67		36.864		6.55		10.225		8.74	
sec δ, tg δ	1.046		+0.307		1.023		+0.217		1.023		−0.214		1.342		−0.895	
a, *a'*	+3.3		−17.5		+3.2		−17.6		+2.9		−17.7		+2.5		−17.9	
b, *b'*	−0.02		− 0.48		−0.01		− 0.48		+0.01		− 0.47		+0.05		− 0.45	

Scheinbare Sternörter 1939

Tag	384) ζ Leonis				383) λ Ursae maj.				386) μ Ursae maj.				387) 30 H. Ursae maj.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$10^h\ 13^m$		$+23°\ 42'$		$10^h\ 13^m$		$+43°\ 12'$		$10^h\ 18^m$		$+41°\ 47'$		$10^h\ 19^m$		$+65°\ 51'$	
Jan. 1	19.651	291	63.81	94	27.237	348	50.73	4	43.785	346	65.05	15	47.44	56	69.39	86
11	19.942	252	62.87	62	27.585	301	50.69	39	44.131	301	64.90	28	48.00	49	70.25	137
21	20.194	207	62.25	29	27.886	246	51.08	80	44.432	248	65.18	70	48.49	40	71.62	182
31	20.401	155	61.96	3	28.132	184	51.88	116	44.680	187	65.88	106	48.89	29	73.44	221
Febr. 10	20.556	102	61.99	32	28.316	119	53.04	145	44.867	124	66.94	136	49.18	19	75.65	249
20	20.658	49	62.31	56	28.435	53	54.49	167	44.991	60	68.30	160	49.37	7	78.14	266
März 1	24 20.707	0	62.87	77	24 28.488	10	56.16	181	25 45.051	2	69.90	175	26 49.44	4	80.80	272
11	20.707	45	63.64	91	28.478	66	57.97	185	45.049	57	71.65	181	49.40	14	83.52	267
21	20.662	82	64.55	99	28.412	114	59.82	181	44.992	105	73.46	179	49.26	23	86.19	250
31	20.580	111	65.54	101	28.298	154	61.63	170	44.887	143	75.25	169	49.03	30	88.69	223
Apr. 10	20.469	132	66.55	100	28.144	181	63.33	151	44.744	172	76.94	152	48.73	36	90.92	189
20	20.337	144	67.55	92	27.963	199	64.84	127	44.572	190	78.46	129	48.37	40	92.81	149
30	20.193	149	68.47	82	27.764	207	66.11	98	44.382	199	79.75	102	47.97	42	94.30	103
Mai 10	20.044	147	69.29	69	27.557	205	67.09	66	44.183	198	80.77	73	47.55	43	95.33	54
20	19.897	139	69.98	54	27.352	196	67.75	34	43.985	190	81.50	40	47.12	42	95.87	5
30	19.758	127	70.52	37	27.156	181	68.09	0	43.795	176	81.90	8	46.70	40	95.92	44
Juni 9	19.631	110	70.89	20	26.975	159	68.09	33	43.619	156	81.98	25	46.30	36	95.48	92
19	19.521	91	71.09	3	26.816	133	67.76	65	43.463	132	81.73	56	45.94	31	94.56	137
29	19.430	69	71.12	15	26.683	105	67.11	96	43.331	105	81.17	87	45.63	26	93.19	178
Juli 9	19.361	45	70.97	32	26.578	73	66.15	124	43.226	76	80.30	115	45.37	20	91.41	214
19	19.316	21	70.65	50	26.505	39	64.91	150	43.150	43	79.15	141	45.17	14	89.27	247
29	19.295	6	70.15	68	26.466	5	63.41	173	43.107	10	77.74	164	45.03	8	86.80	273
Aug. 8	19.301	34	69.47	86	26.461	32	61.68	193	43.097	26	76.10	186	44.95	0	84.07	294
18	19.335	63	68.61	103	26.493	70	59.75	211	43.123	62	74.24	204	44.95	7	81.13	310
28	19.398	94	67.58	120	26.563	110	57.64	225	43.185	101	72.20	219	45.02	15	78.03	320
Sept. 7	19.492	127	66.38	137	26.673	150	55.39	236	43.286	140	70.01	231	45.17	22	74.83	323
17	19.619	161	65.01	154	26.823	192	53.03	243	43.426	182	67.70	240	45.39	29	71.60	320
27	19.780	195	63.47	168	27.015	233	50.60	247	43.608	223	65.30	244	45.68	37	68.40	310
Okt. 7	19.975	229	61.79	180	27.248	274	48.13	244	43.831	263	62.86	244	46.05	43	65.30	294
17	20.204	262	59.99	190	27.522	313	45.69	237	44.094	303	60.42	238	46.48	50	62.36	271
27	20.466	292	58.09	195	27.835	348	43.32	225	44.397	338	58.04	228	46.98	56	59.65	241
Nov. 6	20.758	317	56.14	196	28.183	378	41.07	205	44.735	368	55.76	210	47.54	60	57.24	203
16	21.075	334	54.18	190	28.561	399	39.02	180	45.103	390	53.66	186	48.14	64	55.21	161
26	21.409	344	52.28	179	28.960	410	37.22	150	45.493	402	51.80	157	48.78	66	53.60	111
Dez. 6	21.753	343	50.49	161	29.370	409	35.72	112	45.895	403	50.23	122	49.44	66	52.49	58
16	22.096	331	48.88	139	29.779	396	34.60	72	46.298	391	49.01	82	50.10	64	51.91	2
26	22.427	309	47.49	111	30.175	369	33.88	29	46.689	367	48.19	40	50.74	59	51.89	53
36	22.736		46.38		30.544		33.59		47.056		47.79		51.33		52.42	
Mittl. Ort	18.119		79.47		25.618		70.82		42.222		84.95		45.43		92.99	
sec δ, tg δ	1.092		+0.439		1.372		+0.940		1.342		+0.894		2.447		+2.233	
a, *a'*	+3.3		−17.9		+3.6		−17.9		+3.6		−18.1		+4.3		−18.2	
b, *b'*	−0.03		−0.45		−0.06		−0.45		−0.05		−0.43		−0.13		−0.42	

Tag	389) μ Hydrae				391) J Carinae				392) Lac. α Antliae				390) 31 Leonis min.			
	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1939	$10^h\ 23^m$		−16° 31′		$10^h\ 23^m$		−73° 43′		$10^h\ 24^m$		−30° 45′		$10^h\ 24^m$		+37° 0′
	s		″		s		″		s		″		s		″	
Jan. 1	10.030	274	31.58	255	15.68	64	5.88	307	23.294	289	23.84	290	23.294	332	54.79	42
11	10.304	236	34.13	254	16.32	52	8.95	343	23.583	248	26.74	300	23.626	290	54.37	0
21	10.540	193	36.67	246	16.84	39	12.38	369	23.831	200	29.74	302	23.916	241	54.37	40
31	10.733	145	39.13	231	17.23	25	16.07	385	24.031	148	32.76	295	24.157	185	54.77	77
Febr. 10	10.878	96	41.44	212	17.48	12	19.92	391	24.179	96	35.71	283	24.342	125	55.54	108
20	10.974	48	43.56	189	17.60	1	23.83	387	24.275	44	38.54	263	24.467	65	56.62	132
März 1	[26] 11.022	3	45.45	163	[26] 17.59	15	27.70	375	[27] 24.319	4	41.17	239	[27] 24.532	8	57.94	151
11	11.025	36	47.08	137	17.44	26	31.45	353	24.315	47	43.56	211	24.540	45	59.45	160
21	10.989	70	48.45	109	17.18	37	34.98	326	24.268	83	45.67	180	24.495	89	61.05	162
31	10.919	97	49.54	81	16.81	46	38.24	290	24.185	113	47.47	147	24.406	125	62.67	157
Apr. 10	10.822	116	50.35	54	16.35	54	41.14	250	24.072	135	48.94	113	24.281	152	64.24	144
20	10.706	129	50.89	27	15.81	60	43.64	205	23.937	150	50.07	77	24.129	170	65.68	126
30	10.577	135	51.16	0	15.21	64	45.69	157	23.787	159	50.84	41	23.959	178	66.94	103
Mai 10	10.442	137	51.16	24	14.57	67	47.26	104	23.628	161	51.25	6	23.781	179	67.97	78
20	10.305	132	50.92	48	13.90	68	48.30	50	23.467	159	51.31	30	23.602	173	68.75	50
30	10.173	124	50.44	70	13.22	68	48.80	5	23.308	152	51.01	64	23.429	160	69.25	21
Juni 9	10.049	113	49.74	91	12.54	65	48.75	58	23.156	141	50.37	96	23.269	143	69.46	8
19	9.936	99	48.83	108	11.89	61	48.17	111	23.015	126	49.41	126	23.126	122	69.38	37
29	9.837	82	47.75	122	11.28	56	47.06	160	22.889	108	48.15	152	23.004	98	69.01	64
Juli 9	9.755	62	46.53	134	10.72	49	45.46	205	22.781	86	46.63	173	22.906	71	68.37	91
19	9.693	41	45.19	141	10.23	40	43.41	244	22.695	62	44.90	190	22.835	43	67.46	116
29	9.652	16	43.78	142	9.83	30	40.97	274	22.633	34	43.00	199	22.792	12	66.30	139
Aug. 8	9.636	10	42.36	139	9.53	19	38.23	296	22.599	3	41.01	203	22.780	19	64.91	160
18	9.646	40	40.97	129	9.34	5	35.27	308	22.596	31	38.98	198	22.799	54	63.31	179
28	9.686	72	39.68	113	9.29	7	32.19	310	22.627	68	37.00	186	22.853	89	61.52	197
Sept. 7	9.758	105	38.55	91	9.36	21	29.09	300	22.695	108	35.14	165	22.942	126	59.55	210
17	9.863	140	37.64	64	9.57	35	26.09	279	22.803	148	33.49	137	23.068	165	57.45	222
27	10.003	177	37.00	32	9.92	48	23.30	245	22.951	190	32.12	102	23.233	205	55.23	229
Okt. 7	10.180	214	36.68	6	10.40	60	20.85	203	23.141	230	31.10	59	23.438	244	52.94	233
17	10.394	247	36.74	45	11.00	70	18.82	150	23.371	268	30.51	13	23.682	281	50.61	233
27	10.641	277	37.19	85	11.70	78	17.32	92	23.639	302	30.38	36	23.963	316	48.28	226
Nov. 6	10.918	301	38.04	125	12.48	85	16.40	27	23.941	327	30.74	86	24.279	346	46.02	213
16	11.219	319	39.29	161	13.33	87	16.13	39	24.268	345	31.60	134	24.625	368	43.89	195
26	11.538	328	40.90	193	14.20	87	16.52	105	24.613	352	32.94	180	24.993	380	41.94	170
Dez. 6	11.866	325	42.83	219	15.07	84	17.57	168	24.965	349	34.74	220	25.373	382	40.24	140
16	12.191	313	45.02	239	15.91	78	19.25	227	25.314	334	36.94	252	25.755	373	38.84	104
26	12.504	290	47.41	250	16.69	70	21.52	277	25.648	307	39.46	276	26.128	350	37.80	65
36	12.794		49.91		17.39		24.29		25.955		42.22		26.478		37.15	
Mittl. Ort	8.383		27.57		11.24		14.35		21.476		23.90		21.805		73.73	
sec δ, tg δ	1.043		−0.297		3.567		−3.424		1.164		−0.595		1.252		+0.754	
a, *a′*	+2.9		−18.3		+1.2		−18.3		+2.8		−18.3		+3.5		−18.3	
b, *b′*	+0.02		− 0.41		+0.21		− 0.41		+0.04		− 0.41		−0.05		− 0.41	

Scheinbare Sternörter 1939

Tag	393) s Carinae AR.	Diff.	393) s Carinae Dekl.	Diff.	394) 36 Ursae maj. AR.	Diff.	394) 36 Ursae maj. Dekl.	Diff.
1939	10h 25m		−58° 25′		10h 26m		+56° 16′	
Jan. 1	40.735	398	32.88	315	45.905	442	76.19	40
11	41.133	332	36.03	345	46.347	388	76.59	90
21	41.465	260	39.48	364	46.735	320	77.49	136
31	41.725	183	43.12	374	47.055	244	78.85	175
Febr. 10	41.908	103	46.86	373	47.299	162	80.60	207
20	42.011	27	50.59	364	47.461	78	82.67	229
März 1*)	[27] 42.038	45	54.23	346	[27] 47.539	3	84.96	240
11	41.993	111	57.69	321	47.536	79	87.36	240
21	41.882	169	60.90	291	47.457	146	89.76	232
31	41.713	217	63.81	254	47.311	201	92.08	212
Apr. 10	41.496	256	66.35	213	47.110	243	94.20	186
20	41.240	286	68.48	169	46.867	273	96.06	152
30	40.954	306	70.17	121	46.594	289	97.58	115
Mai 10	40.648	318	71.38	71	46.305	293	98.73	72
20	40.330	321	72.09	21	46.012	287	99.45	29
30	40.009	316	72.30	29	45.725	271	99.74	15
Juni 9	39.693	302	72.01	79	45.454	246	99.59	58
19	39.391	281	71.22	126	45.208	216	99.01	99
29	39.110	253	69.96	170	44.992	179	98.02	137
Juli 9	38.857	216	68.26	208	44.813	138	96.65	173
19	38.641	173	66.18	240	44.675	95	94.92	204
29	38.468	122	63.78	266	44.580	48	92.88	232
Aug. 8	38.346	65	61.12	282	44.532	2	90.56	255
18	38.281	3	58.30	288	44.534	52	88.01	273
28	38.278	65	55.42	285	44.586	105	85.28	286
Sept. 7	38.343	135	52.57	271	44.691	159	82.42	294
17	38.478	206	49.86	246	44.850	214	79.48	298
27	38.684	276	47.40	210	45.064	269	76.50	294
Okt. 7	38.960	342	45.30	166	45.333	324	73.56	286
17	39.302	401	43.64	113	45.657	374	70.70	269
27	39.703	450	42.51	54	46.031	420	68.01	248
Nov. 6	40.153	487	41.97	8	46.451	460	65.53	218
16	40.640	508	42.05	72	46.911	490	63.35	182
26	41.148	513	42.77	134	47.401	507	61.53	140
Dez. 6	41.661	501	44.11	193	47.908	510	60.13	93
16	42.162	473	46.04	245	48.418	497	59.20	43
26	42.635	428	48.49	290	48.915	468	58.77	9
36	43.063		51.39		49.383		58.86	
Mittl. Ort	38.070		39.32		44.256		98.78	
sec δ, tg δ	1.910		−1.627		1.802		+1.499	
a, a′	+2.2		−18.4		+3.9		−18.4	
b, b′	+0.10		− 0.40		−0.09		− 0.40	

Tag	395) 9 H. Draconis AR.	Diff.	395) 9 H. Draconis Dekl.	Diff.	404) 33 Sextantis AR.	Diff.	404) 33 Sextantis Dekl.	Diff.
1939	10h 29m		+76° 0′		10h 38m		−1° 25′	
Jan. 1	60.42	90	76.77	109	19.487	281	21.66	206
11	61.32	79	77.86	164	19.768	247	23.72	193
21	62.11	65	79.50	211	20.015	208	25.65	174
31	62.76	49	81.61	251	20.223	162	27.39	152
Febr. 10	63.25	30	84.12	279	20.385	115	28.91	127
20	63.55	13	86.91	296	20.500	69	30.18	101
März 1*)	[28] 63.68	6	89.87	300	[2] 20.569	24	31.19	76
11	63.62	23	92.87	292	20.593	17	31.95	51
21	63.39	39	95.79	272	20.576	50	32.46	29
31	63.00	52	98.51	243	20.526	78	32.75	10
Apr. 10	62.48	63	100.94	203	20.448	99	32.85	9
20	61.85	70	102.97	158	20.349	113	32.76	24
30	61.15	76	104.55	108	20.236	120	32.52	38
Mai 10	60.39	78	105.63	54	20.116	123	32.14	49
20	59.61	78	106.17	1	19.993	121	31.65	58
30	58.83	74	106.16	56	19.872	114	31.07	66
Juni 9	58.09	69	105.60	107	19.758	105	30.41	71
19	57.40	63	104.53	157	19.653	92	29.70	76
29	56.77	53	102.96	201	19.561	77	28.94	77
Juli 9	56.24	44	100.95	241	19.484	61	28.17	76
19	55.80	33	98.54	275	19.423	41	27.41	73
29	55.47	21	95.79	304	19.382	19	26.68	66
Aug. 8	55.26	9	92.75	326	19.363	4	26.02	57
18	55.17	4	89.49	340	19.367	30	25.45	43
28	55.21	16	86.09	350	19.397	60	25.02	26
Sept. 7	55.37	29	82.59	351	19.457	91	24.76	5
17	55.66	42	79.08	344	19.548	124	24.71	20
27	56.08	54	75.64	332	19.672	159	24.91	47
Okt. 7	56.62	66	72.32	312	19.831	195	25.38	76
17	57.28	78	69.20	284	20.026	229	26.14	105
27	58.06	87	66.36	249	20.255	260	27.19	133
Nov. 6	58.93	94	63.87	206	20.515	287	28.52	159
16	59.87	101	61.81	157	20.802	307	30.11	181
26	60.88	104	60.24	103	21.109	319	31.92	198
Dez. 6	61.92	105	59.21	46	21.428	322	33.90	209
16	62.97	102	58.75	15	21.750	313	35.99	212
26	63.99	96	58.90	75	22.063	295	38.11	209
36	64.95		59.65		22.358		40.20	
Mittl. Ort	57.92		101.40		18.026		13.47	
sec δ, tg δ	4.142		+4.019		1.000		−0.025	
a, a′	+5.1		−18.5		+3.1		−18.8	
b, b′	−0.25		− 0.38		0.00		− 0.35	

*) Bei Stern 404) lies März 2.

Tag	406) ϑ Argus				407) 42 Leonis min.				408) μ Argus				409) l Leonis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$10^h\ 40^m$		$-64°\ 4'$		$10^h\ 42^m$		$+30°\ 59'$		$10^h\ 44^m$		$-49°\ 5'$		$10^h\ 46^m$		$+10°\ 51'$	
	s		"		s		"		s		"		s		"	
Jan. 1	49.53	48	19.77	300	30.071	324	57.42	81	10.483	362	45.76	299	4.534	292	54.44	163
11	50.01	41	22.77	334	30.395	289	56.61	42	10.845	313	48.75	326	4.826	261	52.81	139
21	50.42	32	26.11	360	30.684	245	56.19	3	11.158	255	52.01	342	5.087	221	51.42	112
31	50.74	24	29.71	375	30.929	194	56.16	35	11.413	194	55.43	350	5.308	175	50.30	83
Febr. 10	50.98	15	33.46	381	31.123	139	56.51	68	11.607	130	58.93	349	5.483	128	49.47	54
20	51.13	6	37.27	376	31.262	84	57.19	97	11.737	67	62.42	339	5.611	80	48.93	26
März 2	51.19	3	41.03	364	31.346	30	58.16	120	11.804	7	65.81	322	5.691	33	48.67	0
11	51.16	11	44.67	343	31.376	18	59.36	134	11.811	48	69.03	298	5.724	8	48.67	22
21	51.05	18	48.10	316	31.358	62	60.70	142	11.763	96	72.01	269	5.716	44	48.89	39
31	50.87	24	51.26	282	31.296	96	62.12	144	11.667	137	74.70	235	5.672	74	49.28	53
Apr. 10	50.63	29	54.08	244	31.200	124	63.56	137	11.530	170	77.05	197	5.598	96	49.81	63
20	50.34	33	56.52	200	31.076	143	64.93	126	11.360	196	79.02	157	5.502	112	50.44	69
30	50.01	36	58.52	153	30.933	153	66.19	110	11.164	214	80.59	113	5.390	122	51.13	71
Mai 10	49.65	38	60.05	103	30.780	157	67.29	90	10.950	226	81.72	68	5.268	124	51.84	70
20	49.27	40	61.08	52	30.623	154	68.19	68	10.724	230	82.40	22	5.144	123	52.54	68
30	48.87	39	61.60	0	30.469	147	68.87	43	10.494	229	82.62	24	5.021	117	53.22	63
Juni 9	48.48	38	61.60	53	30.322	134	69.30	19	10.265	222	82.38	69	4.904	108	53.85	56
19	48.10	37	61.07	102	30.188	117	69.49	6	10.043	210	81.69	111	4.796	96	54.41	49
29	47.73	34	60.05	150	30.071	99	69.43	32	9.833	190	80.58	151	4.700	80	54.90	39
Juli 9	47.39	29	58.55	193	29.972	77	69.11	57	9.643	165	79.07	186	4.620	64	55.29	29
19	47.10	25	56.62	230	29.895	54	68.54	81	9.478	136	77.21	217	4.556	45	55.58	17
29	46.85	19	54.32	261	29.841	28	67.73	103	9.342	100	75.04	239	4.511	24	55.75	3
Aug. 8	46.66	12	51.71	282	29.813	1	66.70	125	9.242	58	72.65	254	4.487	0	55.78	12
18	46.54	5	48.89	295	29.814	31	65.45	147	9.184	12	70.11	261	4.487	26	55.66	29
28	46.49	3	45.94	296	29.845	64	63.98	166	9.172	39	67.50	258	4.513	55	55.37	49
Sept. 7	46.52	12	42.98	288	29.909	98	62.32	183	9.211	94	64.92	245	4.568	86	54.88	69
17	46.64	21	40.10	268	30.007	136	60.49	199	9.305	151	62.47	221	4.654	120	54.19	91
27	46.85	29	37.42	236	30.143	174	58.50	212	9.456	208	60.26	189	4.774	154	53.28	113
Okt. 7	47.14	38	35.06	194	30.317	213	56.38	221	9.664	265	58.37	148	4.928	190	52.15	135
17	47.52	45	33.12	145	30.530	251	54.17	227	9.929	316	56.89	98	5.118	226	50.80	156
27	47.97	51	31.67	88	30.781	287	51.90	227	10.245	361	55.91	43	5.344	258	49.24	174
Nov. 6	48.48	56	30.79	26	31.068	317	49.63	222	10.606	398	55.48	14	5.602	287	47.50	189
16	49.04	59	30.53	39	31.385	342	47.41	210	11.004	422	55.62	74	5.889	309	45.61	198
26	49.63	60	30.92	103	31.727	358	45.31	192	11.426	433	56.36	132	6.198	323	43.63	201
Dez. 6	50.23	59	31.95	165	32.085	364	43.39	167	11.859	431	57.68	187	6.521	328	41.62	199
16	50.82	56	33.60	222	32.449	357	41.72	138	12.290	415	59.55	234	6.849	323	39.63	190
26	51.38	51	35.82	271	32.806	340	40.34	102	12.705	383	61.89	276	7.172	306	37.73	174
36	51.89		38.53		33.146		39.32		13.088		64.65		7.478		35.99	
Mittl. Ort	46.57		28.07		28.731		75.01		8.337		51.36		3.176		66.29	
sec δ, tg δ	2.287		−2.057		1.167		+0.601		1.527		−1.154		1.018		+0.192	
a, *a'*	+2.1		−18.9		+3.3		−18.9		+2.6		−19.0		+3.2		−19.0	
b, *b'*	+0.13		−0.34		−0.04		−0.33		+0.07		−0.32		−0.01		−0.32	

Scheinbare Sternörter 1939

Tag	415) *i* Velorum				416) β Ursae maj.				417) α Ursae maj.				418) χ Leonis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$10^h\ 57^m$		$-41°\ 53'$		$10^h\ 58^m$		$+56°\ 41'$		$10^h\ 59^m$		$+62°\ 4'$		$11^h\ 1^m$		$+7°\ 39'$	
	s		″		s		″		s		″		s		″	
Jan. 1	22.939	344	49.69	285	11.733	471	72.06	7	60.12	54	26.53	24	53.598	297	47.77	179
11	23.283	304	52.54	308	12.204	425	72.13	62	60.66	48	26.77	81	53.895	268	45.98	158
21	23.587	254	55.62	322	12.629	365	72.75	113	61.14	41	27.58	133	54.163	230	44.40	132
31	23.841	200	58.84	328	12.994	294	73.88	158	61.55	34	28.91	180	54.393	187	43.08	105
Febr. 10	24.041	143	62.12	323	13.288	215	75.46	196	61.89	25	30.71	217	54.580	141	42.03	76
20	24.184	87	65.35	313	13.503	133	77.42	225	62.14	15	32.88	246	54.721	94	41.27	47
März 2	24.271	33	68.48	296	13.636	51	79.67	244	62.29	5	35.34	264	54.815	49	40.80	21
11	24.304	17	71.44	272	13.687	28	82.11	252	62.34	4	37.98	269	54.864	7	40.59	3
21	24.287	60	74.16	244	13.659	98	84.63	249	62.30	12	40.67	264	54.871	29	40.62	23
31	24.227	98	76.60	213	13.561	160	87.12	236	62.18	20	43.31	249	54.842	59	40.85	39
Apr. 10	24.129	128	78.73	178	13.401	210	89.48	214	61.98	25	45.80	223	54.783	84	41.24	52
20	24.001	152	80.51	140	13.191	247	91.62	184	61.73	30	48.03	190	54.699	101	41.76	60
30	23.849	170	81.91	100	12.944	274	93.46	148	61.43	33	49.93	151	54.598	112	42.36	66
Mai 10	23.679	181	82.91	60	12.670	287	94.94	108	61.10	36	51.44	107	54.486	118	43.02	69
20	23.498	186	83.51	18	12.383	290	96.02	64	60.74	35	52.51	60	54.368	119	43.71	69
30	23.312	187	83.69	23	12.093	284	96.66	20	60.39	35	53.11	12	54.249	116	44.40	67
Juni 9	23.125	183	83.46	63	11.809	268	96.86	26	60.04	33	53.23	37	54.133	109	45.07	63
19	22.942	174	82.83	101	11.541	246	96.60	69	59.71	31	52.86	84	54.024	100	45.70	57
29	22.768	160	81.82	137	11.295	217	95.91	112	59.40	28	52.02	128	53.924	88	46.27	51
Juli 9	22.608	141	80.45	169	11.078	183	94.79	152	59.12	23	50.74	169	53.836	74	46.78	42
19	22.467	118	78.76	195	10.895	145	93.27	187	58.89	18	49.05	208	53.762	57	47.20	31
29	22.349	89	76.81	216	10.750	102	91.40	220	58.71	14	46.97	241	53.705	37	47.51	20
Aug. 8	22.260	55	74.65	229	10.648	56	89.20	248	58.57	8	44.56	269	53.668	16	47.71	5
18	22.205	17	72.36	234	10.592	7	86.72	272	58.49	2	41.87	293	53.652	10	47.76	12
28	22.188	26	70.02	231	10.585	46	84.00	291	58.47	4	38.94	311	53.662	37	47.64	30
Sept. 7	22.214	73	67.71	218	10.631	101	81.09	304	58.51	10	35.83	323	53.699	69	47.34	51
17	22.287	123	65.53	196	10.732	157	78.05	312	58.61	17	32.60	329	53.768	102	46.83	74
27	22.410	174	63.57	166	10.889	216	74.93	314	58.78	24	29.31	329	53.870	138	46.09	97
Okt. 7	22.584	225	61.91	126	11.105	275	71.79	309	59.02	31	26.02	321	54.008	175	45.12	121
17	22.809	274	60.65	80	11.380	332	68.70	298	59.33	38	22.81	307	54.183	211	43.91	145
27	23.083	317	59.85	30	11.712	386	65.72	278	59.71	43	19.74	284	54.394	246	42.46	166
Nov. 6	23.400	352	59.55	25	12.098	433	62.94	252	60.14	49	16.90	254	54.640	277	40.80	183
16	23.752	379	59.80	80	12.531	472	60.42	219	60.63	53	14.36	216	54.917	301	38.97	197
26	24.131	394	60.60	133	13.003	499	58.23	178	61.16	57	12.20	172	55.218	319	37.00	204
Dez. 6	24.525	396	61.93	184	13.502	513	56.45	131	61.73	59	10.48	122	55.537	325	34.96	206
16	24.921	385	63.77	227	14.015	510	55.14	80	62.32	58	9.26	67	55.862	323	32.90	200
26	25.306	361	66.04	265	14.525	491	54.34	26	62.90	55	8.59	10	56.185	309	30.90	188
36	25.667		68.69		15.016		54.08		63.45		8.49		56.494		29.02	
Mittl. Ort	21.067		54.23		10.475		95.15		58.84		50.41		52.315		58.35	
sec δ, tg δ	1.343		−0.898		1.822		+1.523		2.136		+1.887		1.009		+0.135	
a, *a′*	+2.7		−19.3		+3.6		−19.3		+3.7		−19.4		+3.1		−19.4	
b, *b′*	+0.06		− 0.27		−0.10		− 0.27		−0.12		− 0.26		−0.01		− 0.25	

Tag	420) ψ Ursae maj.				421) β Crateris				422) δ Leonis				423) ϑ Leonis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$11^h\ 6^m$		$+44°\ 49'$		$11^h\ 8^m$		$-22°\ 29'$		$11^h\ 10^m$		$+20°\ 50'$		$11^h\ 11^m$		$+15°\ 45'$	
	s		"		s		"		s		"		s		"	
Jan. 1	15.703	388	26.27	47	40.803	309	33.22	256	53.223	317	74.93	138	3.667	310	34.88	156
11	16.091	353	25.80	3	41.112	277	35.78	262	53.540	289	73.55	106	3.977	281	33.32	127
21	16.444	307	25.83	52	41.389	237	38.40	263	53.829	250	72.49	70	4.258	245	32.05	95
31	16.751	250	26.35	97	41.626	193	41.03	255	54.079	207	71.79	34	4.503	201	31.10	62
Febr. 10	17.001	189	27.32	135	41.819	146	43.58	242	54.286	160	71.45	1	4.704	155	30.48	30
20	17.190	124	28.67	168	41.965	99	46.00	224	54.446	109	71.46	32	4.859	107	30.18	2
März 2	17.314	60	30.35	192	42.064	52	48.24	202	54.555	61	71.78	59	4.966	60	30.20	28
11	9 17.374	0	32.27	206	10 42.116	11	50.26	177	10 54.616	16	72.37	81	11 5.026	16	30.48	52
21	17.374	55	34.33	210	42.127	27	52.03	150	54.632	24	73.18	98	5.042	22	31.00	70
31	17.319	102	36.43	207	42.100	58	53.53	123	54.608	58	74.16	108	5.020	55	31.70	82
Apr. 10	17.217	140	38.50	193	42.042	83	54.76	94	54.550	86	75.24	111	4.965	80	32.52	90
20	17.077	169	40.43	174	41.959	103	55.70	66	54.464	105	76.35	111	4.885	100	33.42	93
30	16.908	189	42.17	147	41.856	117	56.36	38	54.359	120	77.46	106	4.785	114	34.35	92
Mai 10	16.719	200	43.64	116	41.739	125	56.74	10	54.239	127	78.52	96	4.671	121	35.27	87
20	16.519	203	44.80	83	41.614	130	56.84	18	54.112	130	79.48	83	4.550	123	36.14	79
30	16.316	200	45.63	46	41.484	130	56.66	44	53.982	127	80.31	68	4.427	121	36.93	69
Juni 9	16.116	189	46.09	8	41.354	127	56.22	69	53.855	122	80.99	51	4.306	116	37.62	58
19	15.927	174	46.17	29	41.227	120	55.53	91	53.733	112	81.50	33	4.190	107	38.20	44
29	15.753	155	45.88	65	41.107	110	54.62	112	53.621	100	81.83	14	4.083	96	38.64	29
Juli 9	15.598	131	45.23	100	40.997	97	53.50	129	53.521	85	81.97	5	3.987	82	38.93	13
19	15.467	105	44.23	133	40.900	80	52.21	142	53.436	68	81.92	26	3.905	65	39.06	3
29	15.362	75	42.90	165	40.820	60	50.79	151	53.368	48	81.66	46	3.840	46	39.03	20
Aug. 8	15.287	42	41.25	192	40.760	37	49.28	154	53.320	24	81.20	67	3.794	23	38.83	39
18	15.245	6	39.33	216	40.723	8	47.74	150	53.296	1	80.53	88	3.771	1	38.44	59
28	15.239	34	37.17	238	40.715	24	46.24	141	53.297	30	79.65	109	3.772	29	37.85	79
Sept. 7	15.273	75	34.79	256	40.739	59	44.83	124	53.327	62	78.56	130	3.801	61	37.06	100
17	15.348	120	32.23	270	40.798	98	43.59	102	53.389	98	77.26	151	3.862	95	36.06	121
27	15.468	167	29.53	278	40.896	139	42.57	72	53.487	134	75.75	170	3.957	132	34.85	143
Okt. 7	15.635	214	26.75	282	41.035	181	41.85	38	53.621	174	74.05	188	4.089	170	33.42	163
17	15.849	262	23.93	280	41.216	221	41.47	1	53.795	212	72.17	202	4.259	208	31.79	182
27	16.111	307	21.13	270	41.437	260	41.48	43	54.007	249	70.15	213	4.467	244	29.97	196
Nov. 6	16.418	347	18.43	255	41.697	292	41.91	85	54.256	283	68.02	220	4.711	277	28.01	207
16	16.765	380	15.88	232	41.989	318	42.76	126	54.539	310	65.82	220	4.988	304	25.94	212
26	17.145	404	13.56	201	42.307	334	44.02	165	54.849	330	63.62	213	5.292	323	23.82	212
Dez. 6	17.549	418	11.55	165	42.641	342	45.67	198	55.179	340	61.49	200	5.615	333	21.70	203
16	17.967	417	9.90	122	42.983	336	47.65	225	55.519	340	59.49	181	5.948	332	19.67	190
26	18.384	403	8.68	75	43.319	321	49.90	245	55.859	328	57.68	155	6.280	320	17.77	170
36	18.787		7.93		43.640		52.35		56.187		56.13		6.600		16.07	
Mittl. Ort	14.562		47.15		39.312		32.65		52.057		89.49		2.480		47.87	
sec δ, tg δ	1.410		+0.994		1.082		−0.414		1.070		+0.381		1.039		+0.282	
a, a'	+3.4		−19.5		+3.0		−19.5		+3.2		−19.6		+3.2		−19.6	
b, b'	−0.06		−0.23		+0.03		−0.22		−0.02		−0.21		−0.02		−0.21	

Scheinbare Sternörter 1939

Tag	425) ν Ursae maj. AR.	Δ	425) Dekl.	Δ	426) δ Crateris AR.	Δ	426) Dekl.	Δ	427) σ Leonis AR.	Δ	427) Dekl.	Δ	428) π Centauri AR.	Δ	428) Dekl.	Δ
1939	$11^h\ 15^m$		$+33°\ 25'$		$11^h\ 16^m$		$-14°\ 26'$		$11^h\ 17^m$		$+6°\ 21'$		$11^h\ 18^m$		$-54°\ 9'$	
	s		″		s		″		s		″		s		″	
Jan. 1	12.475	347	20.49	96	18.704	304	56.46	238	60.721	304	40.36	187	15.177	429	14.94	269
11	12.822	317	19.53	53	19.008	276	58.84	237	61.025	278	38.49	167	15.606	382	17.63	303
21	13.139	278	19.00	10	19.284	239	61.21	231	61.303	242	36.82	142	15.988	327	20.66	329
31	13.417	230	18.90	33	19.523	197	63.52	218	61.545	201	35.40	115	16.315	263	23.95	345
Febr. 10	13.647	177	19.23	71	19.720	152	65.70	201	61.746	156	34.25	86	16.578	197	27.40	352
20	13.824	123	19.94	105	19.872	106	67.71	179	61.902	110	33.39	57	16.775	130	30.92	351
März 2	13.947	69	20.99	132	19.978	62	69.50	156	62.012	66	32.82	29	16.905	65	34.43	341
12	$_{12}$14.016	17	22.31	152	$_{12}$20.040	20	71.06	130	$_{12}$62.078	24	32.53	5	$_{12}$16.970	3	37.84	325
21	14.033	29	23.83	163	20.060	16	72.36	106	62.102	13	32.48	17	16.973	53	41.09	301
31	14.004	69	25.46	167	20.044	46	73.42	80	62.089	44	32.65	34	16.920	103	44.10	273
Apr. 10	13.935	101	27.13	163	19.998	71	74.22	55	62.045	70	32.99	48	16.817	146	46.83	239
20	13.834	125	28.76	153	19.927	91	74.77	31	61.975	89	33.47	59	16.671	181	49.22	201
30	13.709	143	30.29	137	19.836	105	75.08	9	61.886	102	34.06	65	16.490	211	51.23	160
Mai 10	13.566	153	31.66	116	19.731	113	75.17	12	61.784	110	34.71	69	16.279	232	52.83	116
20	13.413	156	32.82	92	19.618	118	75.05	33	61.674	114	35.40	70	16.047	247	53.99	70
30	13.257	155	33.74	65	19.500	119	74.72	52	61.560	114	36.10	69	15.800	257	54.69	23
Juni 9	13.102	149	34.39	37	19.381	116	74.20	69	61.446	110	36.79	66	15.543	258	54.92	24
19	12.953	138	34.76	8	19.265	110	73.51	85	61.336	104	37.45	62	15.285	253	54.68	71
29	12.815	124	34.84	22	19.155	102	72.66	98	61.232	94	38.07	56	15.032	242	53.97	115
Juli 9	12.691	107	34.62	51	19.053	91	71.68	108	61.138	82	38.63	47	14.790	223	52.82	156
19	12.584	87	34.11	79	18.962	76	70.60	115	61.056	67	39.10	38	14.567	197	51.26	193
29	12.497	64	33.32	106	18.886	57	69.45	118	60.989	50	39.48	25	14.370	163	49.33	223
Aug. 8	12.433	37	32.26	132	18.829	36	68.27	116	60.939	29	39.73	12	14.207	121	47.10	247
18	12.396	9	30.94	157	18.793	11	67.11	110	60.910	6	39.85	5	14.086	73	44.63	261
28	12.387	24	29.37	180	18.782	19	66.01	98	60.904	21	39.80	23	14.013	17	42.02	268
Sept. 7	12.411	59	27.57	200	18.801	52	65.03	80	60.925	53	39.57	44	13.996	44	39.34	263
17	12.470	98	25.57	218	18.853	88	64.23	58	60.978	86	39.13	67	14.040	110	36.71	249
27	12.568	138	23.39	233	18.941	127	63.65	29	61.064	123	38.46	90	14.150	177	34.22	223
Okt. 7	12.706	181	21.06	244	19.068	168	63.36	2	61.187	160	37.56	116	14.327	244	31.99	189
17	12.887	224	18.62	250	19.236	206	63.38	37	61.347	199	36.40	139	14.571	308	30.10	145
27	13.111	265	16.12	252	19.442	244	63.75	73	61.546	235	35.01	162	14.879	366	28.65	95
Nov. 6	13.376	301	13.60	246	19.686	277	64.48	110	61.781	268	33.39	181	15.245	414	27.70	38
16	13.677	333	11.14	235	19.963	304	65.58	145	62.049	295	31.58	197	15.659	451	27.32	22
26	14.010	356	8.79	216	20.267	322	67.03	175	62.344	315	29.61	206	16.110	473	27.54	81
Dez. 6	14.366	368	6.63	190	20.589	331	68.78	200	62.659	325	27.55	209	16.583	480	28.35	139
16	14.734	369	4.73	157	20.920	328	70.78	220	62.984	325	25.46	205	17.063	471	29.74	193
26	15.103	359	3.16	120	21.248	316	72.98	232	63.309	314	23.41	195	17.534	447	31.67	241
36	15.462		1.96		21.564		75.30		63.623		21.46		17.981		34.08	
Mittl. Ort	11.388		38.58		17.338		53.56		59.524		50.18		13.062		23.44	
sec δ, tg δ	1.198		+0.660		1.033		−0.258		1.006		+0.112		1.708		−1.384	
a, a'	+3.2		−19.7		+3.0		−19.7		+3.1		−19.7		+2.7		−19.7	
b, b'	−0.04		−0.19		+0.02		−0.19		−0.01		−0.18		+0.09		−0.18	

Tag	429) Grb 1771 AR.		Dekl.		433) λ Draconis AR.		Dekl.	
1939	11h 19m		+64° 39′		11h 27m		+69° 39′	
	s		″		s		″	
Jan. 1	15.89	59	28.45	10	49.18	71	39.70	15
11	16.48	55	28.55	69	49.89	66	39.85	77
21	17.03	48	29.24	125	50.55	58	40.62	133
31	17.51	39	30.49	175	51.13	49	41.95	186
Febr. 10	17.90	30	32.24	218	51.62	37	43.81	230
20	18.20	20	34.42	249	51.99	26	46.11	262
März 2	18.40	10	36.91	271	52.25	13	48.73	284
12	18.50	1	39.62	281	52.38	1	51.57	295
21	13 18.49	9	42.43	279	15 52.39	11	54.52	292
31	18.40	18	45.22	265	52.28	22	57.44	278
Apr. 10	18.22	26	47.87	243	52.06	31	60.22	255
20	17.96	31	50.30	212	51.75	38	62.77	222
30	17.65	35	52.42	172	51.37	44	64.99	180
Mai 10	17.30	38	54.14	128	50.93	48	66.79	135
20	16.92	39	55.42	80	50.45	51	68.14	85
30	16.53	40	56.22	31	49.94	51	68.99	33
Juni 9	16.13	39	56.53	19	49.43	50	69.32	20
19	15.74	36	56.34	69	48.93	48	69.12	72
29	15.38	33	55.65	116	48.45	44	68.40	121
Juli 9	15.05	29	54.49	160	48.01	40	67.19	168
19	14.76	25	52.89	202	47.61	34	65.51	211
29	14.51	19	50.87	238	47.27	28	63.40	249
Aug. 8	14.32	14	48.49	270	46.99	21	60.91	282
18	14.18	8	45.79	297	46.78	13	58.09	311
28	14.10	1	42.82	318	46.65	5	54.98	331
Sept. 7	14.09	6	39.64	332	46.60	4	51.67	347
17	14.15	14	36.32	342	46.64	13	48.20	355
27	14.29	21	32.90	343	46.77	22	44.65	357
Okt. 7	14.50	29	29.47	338	46.99	32	41.08	349
17	14.79	36	26.09	324	47.31	41	37.59	336
27	15.15	44	22.85	303	47.72	49	34.23	312
Nov. 6	15.59	50	19.82	274	48.21	58	31.11	281
16	16.09	55	17.08	237	48.79	65	28.30	242
26	16.64	60	14.71	192	49.44	70	25.88	196
Dez. 6	17.24	62	12.79	141	50.14	73	23.92	141
16	17.86	62	11.38	85	50.87	75	22.51	84
26	18.48	62	10.53	26	51.62	73	21.67	22
36	19.10		10.27		52.35		21.45	
Mittl. Ort	14.91		52.73		48.37		64.52	
sec δ, tg δ	2.337		+2.112		2.878		+2.699	
a, *a′*	+3.6		−19.7		+3.6		−19.8	
b, *b′*	−0.14		−0.18		−0.18		−0.14	

Tag	434) ξ Hydrae AR.		Dekl.		436) λ Centauri AR.		Dekl.	
1939	11h 29m		−31° 31′		11h 32m		−62° 40′	
	s		″		s		″	
Jan. 1	61.317	336	8.67	255	59.82	54	44.99	247
11	61.653	307	11.22	272	60.36	48	47.46	288
21	61.960	267	13.94	282	60.84	42	50.34	322
31	62.227	223	16.76	284	61.26	34	53.56	345
Febr. 10	62.450	175	19.60	277	61.60	27	57.01	361
20	62.625	125	22.37	266	61.87	18	60.62	366
März 2	62.750	78	25.03	249	62.05	10	64.28	363
12	62.828	33	27.52	227	62.15	3	67.91	353
21	15 62.861	8	29.79	202	16 62.18	5	71.44	334
31	62.853	42	31.81	175	62.13	11	74.78	309
Apr. 10	62.811	72	33.56	146	62.02	17	77.87	278
20	62.739	97	35.02	114	61.85	22	80.65	242
30	62.642	115	36.16	82	61.63	27	83.07	201
Mai 10	62.527	129	36.98	50	61.36	30	85.08	157
20	62.398	138	37.48	17	61.06	32	86.65	110
30	62.260	144	37.65	16	60.74	34	87.75	60
Juni 9	62.116	145	37.49	48	60.40	35	88.35	9
19	61.971	142	37.01	78	60.05	36	88.44	41
29	61.829	137	36.23	106	59.69	34	88.03	91
Juli 9	61.692	126	35.17	132	59.35	32	87.12	138
19	61.566	111	33.85	153	59.03	29	85.74	180
29	61.455	91	32.32	169	58.74	26	83.94	217
Aug. 8	61.364	68	30.63	180	58.48	20	81.77	248
18	61.296	39	28.83	184	58.28	13	79.29	270
28	61.257	4	26.99	181	58.15	7	76.59	283
Sept. 7	61.253	35	25.18	171	58.08	1	73.76	286
17	61.288	77	23.47	151	58.09	10	70.90	277
27	61.365	123	21.96	126	58.19	18	68.13	258
Okt. 7	61.488	171	20.70	92	58.37	27	65.55	228
17	61.659	217	19.78	53	58.64	36	63.27	188
27	61.876	260	19.25	9	59.00	43	61.39	138
Nov. 6	62.136	299	19.16	37	59.43	49	60.01	83
16	62.435	330	19.53	84	59.92	54	59.18	23
26	62.765	352	20.37	130	60.46	58	58.95	40
Dez. 6	63.117	362	21.67	172	61.04	59	59.35	101
16	63.479	360	23.39	208	61.63	58	60.36	160
26	63.839	348	25.47	239	62.21	56	61.96	214
36	64.187		27.86		62.77		64.10	
Mittl. Ort	59.819		11.74		57.41		55.92	
sec δ, tg δ	1.173		−0.613		2.179		−1.936	
a, *a′*	+3.0		−19.9		+2.8		−19.9	
b, *b′*	+0.04		−0.13		+0.13		−0.12	

Scheinbare Sternörter 1939

Tag	437) υ Leonis AR.		437) υ Leonis Dekl.		440) 3 Draconis AR.		440) 3 Draconis Dekl.		441) χ Ursae maj. AR.		441) χ Ursae maj. Dekl.		444) β Leonis[1] AR.		444) β Leonis[1] Dekl.	
1939	$11^h\ 33^m$		$-0°\ 29'$		$11^h\ 39^m$		$+67°\ 4'$		$11^h\ 42^m$		$+48°\ 6'$		$11^h\ 45^m$		$+14°\ 54'$	
Jan. 1	50.672	308	19.88	206	5.93	65	33.24	7	51.020	422	42.14	72	57.974	320	35.20	172
11	50.980	284	21.94	193	6.58	61	33.17	54	51.442	394	41.42	17	58.294	298	33.48	143
21	51.264	251	23.87	175	7.19	55	33.71	113	51.836	353	41.25	36	58.592	266	32.05	111
31	51.515	212	25.62	152	7.74	46	34.84	167	52.189	303	41.61	87	58.858	228	30.94	77
Febr. 10	51.727	169	27.14	126	8.20	36	36.51	213	52.492	243	42.48	133	59.086	185	30.17	43
20	51.896	124	28.40	100	8.56	26	38.64	249	52.735	179	43.81	172	59.271	139	29.74	9
März 2	52.020	82	29.40	72	8.82	15	41.13	275	52.914	113	45.53	202	59.410	94	29.65	22
12	$_{16}$52.102	40	30.12	47	$_{18}$8.97	4	43.88	289	$_{19}$53.027	48	47.55	223	$_{19}$59.504	51	29.87	48
21	52.142	4	30.59	23	9.01	6	46.77	291	53.075	11	49.78	235	59.555	11	30.35	69
31	52.146	28	30.82	3	8.95	16	49.68	281	53.064	66	52.13	234	59.566	23	31.04	85
Apr. 10	52.118	54	30.85	16	8.79	25	52.49	261	52.998	112	54.47	226	59.543	52	31.89	96
20	52.064	75	30.69	30	8.54	32	55.10	231	52.886	150	56.73	209	59.491	76	32.85	101
30	51.989	90	30.39	43	8.22	37	57.41	193	52.736	179	58.82	183	59.415	93	33.86	102
Mai 10	51.899	101	29.96	53	7.85	41	59.34	150	52.557	199	60.65	153	59.322	105	34.88	99
20	51.798	107	29.43	60	7.44	43	60.84	103	52.358	212	62.18	118	59.217	114	35.87	92
30	51.691	110	28.83	65	7.01	45	61.87	52	52.146	218	63.36	80	59.103	117	36.79	81
Juni 9	51.581	109	28.18	69	6.56	44	62.39	0	51.928	216	64.16	39	58.986	118	37.60	70
19	51.472	105	27.49	70	6.12	42	62.39	51	51.712	208	64.55	3	58.868	115	38.30	56
29	51.367	99	26.79	70	5.70	40	61.88	101	51.504	196	64.52	43	58.753	108	38.86	41
Juli 9	51.268	90	26.09	68	5.30	36	60.87	148	51.308	178	64.09	84	58.645	100	39.27	24
19	51.178	77	25.41	63	4.94	32	59.39	192	51.130	157	63.25	122	58.545	89	39.51	7
29	51.101	62	24.78	56	4.62	27	57.47	232	50.973	130	62.03	158	58.456	73	39.58	12
Aug. 8	51.039	44	24.22	46	4.35	21	55.15	267	50.843	99	60.45	192	58.383	55	39.46	32
18	50.995	21	23.76	33	4.14	13	52.48	297	50.744	64	58.53	222	58.328	32	39.14	53
28	50.974	5	23.43	17	4.01	7	49.51	322	50.680	25	56.31	248	58.296	7	38.61	74
Sept. 7	50.979	36	23.26	3	3.94	0	46.29	339	50.655	18	53.83	271	58.289	24	37.87	96
17	51.015	70	23.29	26	3.94	9	42.90	350	50.673	66	51.12	289	58.313	58	36.91	119
27	51.085	107	23.55	51	4.03	17	39.40	355	50.739	117	48.23	301	58.371	96	35.72	142
Okt. 7	51.192	147	24.06	78	4.20	26	35.85	352	50.856	169	45.22	308	58.467	135	34.30	164
17	51.339	186	24.84	105	4.46	35	32.33	341	51.025	223	42.14	309	58.602	176	32.66	183
27	51.525	224	25.89	133	4.81	42	28.92	321	51.248	276	39.05	302	58.778	216	30.83	201
Nov. 6	51.749	259	27.22	157	5.23	50	25.71	294	51.524	325	36.03	288	58.994	254	28.82	213
16	52.008	288	28.79	180	5.73	57	22.77	257	51.849	368	33.15	265	59.248	285	26.69	221
26	52.296	310	30.59	197	6.30	63	20.20	213	52.217	403	30.50	235	59.533	311	24.48	222
Dez. 6	52.606	323	32.56	208	6.93	66	18.07	162	52.620	425	28.15	198	59.844	326	22.26	217
16	52.929	325	34.64	212	7.59	67	16.45	105	53.045	436	26.17	153	60.170	332	20.09	204
26	53.254	316	36.76	210	8.26	67	15.40	45	53.481	431	24.64	103	60.502	327	18.05	186
36	53.570		38.86		8.93		14.95		53.912		23.61		60.829		16.19	
Mittl. Ort	49.519		12.79		5.32		57.73		50.260		63.48		56.998		47.23	
sec δ, tg δ	1.000		−0.008		2.568		+2.365		1.498		+1.115		1.035		+0.266	
a, *a'*	+3.1		−19.9		+3.4		−20.0		+3.2		−20.0		+3.1		−20.0	
b, *b'*	0.00		− 0.11		−0.16		− 0.09		−0.07		− 0.07		−0.02		− 0.06	

[1]) Die jährliche Parallaxe (0″.101) ist bereits berücksichtigt.

Tag	445) β Virginis[1]) AR.		Dekl.		447) γ Ursae maj. AR.		Dekl.	
1939	11h 47m		+2° 6′		11h 50m		+54° 1′	
	s		″		s		″	
Jan. 1	32.125	314	22.91	202	38.516	469	39.43	62
11	32.439	292	20.89	187	38.985	441	38.81	4
21	32.731	261	19.02	166	39.426	399	38.77	52
31	32.992	224	17.36	141	39.825	344	39.29	106
Febr. 10	33.216	183	15.95	113	40.169	279	40.35	155
20	33.399	138	14.82	85	40.448	209	41.90	195
März 2	33.537	96	13.97	57	40.657	134	43.85	226
12	33.633	55	13.40	31	40.791	62	46.11	247
21*)	[20] 33.688	17	13.09	8	[21] 40.853	7	48.58	257
31	33.705	15	13.01	13	40.846	71	51.15	256
Apr. 10	33.690	42	13.14	30	40.775	125	53.71	246
20	33.648	64	13.44	44	40.650	171	56.17	226
30	33.584	81	13.88	54	40.479	207	58.43	198
Mai 10	33.503	94	14.42	62	40.272	233	60.41	164
20	33.409	102	15.04	66	40.039	251	62.05	125
30	33.307	106	15.70	68	39.788	259	63.30	82
Juni 9	33.201	107	16.38	69	39.529	260	64.12	38
19	33.094	106	17.07	68	39.269	253	64.50	7
29	32.988	101	17.75	65	39.016	240	64.43	52
Juli 9	32.887	93	18.40	59	38.776	221	63.91	96
19	32.794	83	18.99	52	38.555	197	62.95	137
29	32.711	70	19.51	43	38.358	167	61.58	177
Aug. 8	32.641	52	19.94	31	38.191	132	59.81	212
18	32.589	31	20.25	17	38.059	93	57.69	244
28	32.558	5	20.42	0	37.966	48	55.25	271
Sept. 7	32.553	25	20.42	21	37.918	1	52.54	294
17	32.578	59	20.21	43	37.919	54	49.60	312
27	32.637	95	19.78	67	37.973	111	46.48	324
Okt. 7	32.732	136	19.11	93	38.084	171	43.24	328
17	32.868	176	18.18	120	38.255	232	39.96	327
27	33.044	215	16.98	145	38.487	292	36.69	318
Nov. 6	33.259	252	15.53	168	38.779	348	33.51	300
16	33.511	283	13.85	187	39.127	397	30.51	274
26	33.794	307	11.98	202	39.524	437	27.77	240
Dez. 6	34.101	322	9.96	211	39.961	466	25.37	198
16	34.423	327	7.85	213	40.427	480	23.39	150
26	34.750	322	5.72	207	40.907	478	21.89	95
36	35.072		3.65		41.385		20.94	
Mittl. Ort	31.064		30.55		37.903		61.83	
sec δ, tg δ	1.001		+0.037		1.703		+1.378	
a, *a′*	+3.1		−20.0		+3.1		−20.0	
b, *b′*	0.00		− 0.05		−0.09		− 0.04	

Tag	450) ο Virginis AR.		Dekl.		452) δ Centauri AR.		Dekl.	
1939	12h 2m		+9° 3′		12h 5m		−50° 22′	
	s		″		s		″	
Jan. 1	7.066	320	68.26	190	12.888	439	48.09	223
11	7.386	300	66.36	168	13.327	407	50.32	259
21	7.686	272	64.68	140	13.734	366	52.91	288
31	7.958	237	63.28	110	14.100	316	55.79	309
Febr. 10	8.195	197	62.18	78	14.416	261	58.88	321
20	8.392	154	61.40	46	14.677	203	62.09	325
März 2	8.546	110	60.94	15	14.880	145	65.34	322
12	8.656	69	60.79	12	15.025	88	68.56	312
21*)	8.725	31	60.91	36	[24] 15.113	34	71.68	294
31	[23] 8.756	4	61.27	54	15.147	14	74.62	273
Apr. 10	8.752	33	61.81	70	15.133	58	77.35	246
20	8.719	56	62.51	79	15.075	97	79.81	216
30	8.663	76	63.30	85	14.978	131	81.97	180
Mai 10	8.587	90	64.15	88	14.847	159	83.77	143
20	8.497	101	65.03	86	14.688	183	85.20	103
30	8.396	107	65.89	81	14.505	201	86.23	60
Juni 9	8.289	111	66.70	75	14.304	214	86.83	17
19	8.178	112	67.45	67	14.090	222	87.00	26
29	8.066	108	68.12	57	13.868	223	86.74	69
Juli 9	7.958	103	68.69	44	13.645	218	86.05	109
19	7.855	95	69.13	31	13.427	205	84.96	147
29	7.760	83	69.44	16	13.222	185	83.49	180
Aug. 8	7.677	66	69.60	0	13.037	157	81.69	207
18	7.611	47	69.60	19	12.880	120	79.62	228
28	7.564	22	69.41	39	12.760	75	77.34	241
Sept. 7	7.542	8	69.02	60	12.685	23	74.93	244
17	7.550	40	68.42	83	12.662	36	72.49	238
27	7.590	78	67.59	107	12.698	99	70.11	223
Okt. 7	7.668	118	66.52	131	12.797	165	67.88	196
17	7.786	159	65.21	155	12.962	230	65.92	162
27	7.945	201	63.66	175	13.192	292	64.30	119
Nov. 6	8.146	240	61.91	194	13.484	349	63.11	70
16	8.386	273	59.97	208	13.833	395	62.41	16
26	8.659	301	57.89	216	14.228	429	62.25	39
Dez. 6	8.960	319	55.73	217	14.657	450	62.64	94
16	9.279	327	53.56	212	15.107	456	63.58	146
26	9.606	325	51.44	200	15.563	448	65.04	194
36	9.931		49.44		16.011		66.98	
Mittl. Ort	6.153		77.85		11.237		57.85	
sec δ, tg δ	1.013		+0.160		1.568		−1.208	
a, *a′*	+3.1		−20.0		+3.1		−20.0	
b, *b′*	−0.01		+ 0.01		+0.08		+ 0.02	

[1]) Die jährliche Parallaxe (0″.101) ist bereits berücksichtigt.

*) Bei Stern 450) und 452) lies März 22.

Tag	453) ε Corvi AR.		453) ε Corvi Dekl.		454) 4 H. Draconis AR.		454) 4 H. Draconis Dekl.		456) δ Ursae maj. AR.		456) δ Ursae maj. Dekl.		459) β Chamael. AR.		459) β Chamael. Dekl.	
1939	12ʰ 6ᵐ		−22° 16′		12ʰ 9ᵐ		+77° 56′		12ʰ 12ᵐ		+57° 21′		12ʰ 14ᵐ		−78° 58′	
	s		″		s		″		s		″		s		″	
Jan. 1	60.189	336	48.47	228	21.20	115	53.64	17	25.313	506	54.34	78	47.49	125	9.93	165
11	60.525	314	50.75	238	22.35	109	53.47	49	25.819	484	53.56	18	48.74	116	11.58	220
21	60.839	284	53.13	242	23.44	101	53.96	111	26.303	446	53.38	42	49.90	104	13.78	267
31	61.123	247	55.55	239	24.45	89	55.07	170	26.749	394	53.80	100	50.94	91	16.45	308
Febr. 10	61.370	205	57.94	230	25.34	74	56.77	220	27.143	328	54.80	152	51.85	75	19.53	339
20	61.575	162	60.24	215	26.08	56	58.97	262	27.471	257	56.32	197	52.60	58	22.92	361
März 2	61.737	119	62.39	198	26.64	36	61.59	291	27.728	179	58.29	233	53.18	41	26.53	374
12	61.856	77	64.37	176	27.00	16	64.50	309	27.907	101	60.62	257	53.59	23	30.27	379
22	^{25}61.933	39	66.13	154	^{25}27.16	3	67.59	315	^{26}28.008	25	63.19	271	^{27}53.82	6	34.06	375
31	61.972	5	67.67	129	27.13	22	70.74	307	28.033	46	65.90	274	53.88	10	37.81	363
Apr. 10	61.977	26	68.96	105	26.91	40	73.81	288	27.987	109	68.64	265	53.78	26	41.44	344
20	61.951	51	70.01	80	26.51	56	76.69	259	27.878	164	71.29	248	53.52	42	44.88	317
30	61.900	72	70.81	55	25.95	68	79.28	221	27.714	209	73.77	221	53.10	55	48.05	284
Ma 10	61.828	90	71.36	31	25.27	78	81.49	177	27.505	244	75.98	187	52.55	67	50.89	245
20	61.738	102	71.67	6	24.49	85	83.26	126	27.261	269	77.85	148	51.88	77	53.34	200
30	61.636	113	71.73	17	23.64	90	84.52	73	26.992	286	79.33	105	51.11	86	55.34	152
Juni 9	61.523	120	71.56	40	22.74	93	85.25	18	26.706	293	80.38	58	50.25	92	56.86	99
19	61.403	123	71.16	62	21.81	91	85.43	38	26.413	293	80.96	10	49.33	96	57.85	45
29	61.280	123	70.54	81	20.90	88	85.05	92	26.120	284	81.06	37	48.37	97	58.30	10
Juli 9	61.157	121	69.73	99	20.02	84	84.13	143	25.836	269	80.69	83	47.40	96	58.20	66
19	61.036	112	68.74	114	19.18	76	82.70	192	25.567	247	79.86	129	46.44	91	57.54	119
29	60.924	101	67.60	125	18.42	68	80.78	237	25.320	219	78.57	171	45.53	83	56.35	169
Aug. 8	60.823	84	66.35	131	17.74	57	78.41	275	25.101	185	76.86	210	44.70	72	54.66	213
18	60.739	62	65.04	134	17.17	45	75.66	309	24.916	144	74.76	245	43.98	59	52.53	252
28	60.677	35	63.70	129	16.72	33	72.57	337	24.772	99	72.31	276	43.39	43	50.01	281
Sept. 7	60.642	1	62.41	120	16.39	19	69.20	357	24.673	46	69.55	302	42.96	24	47.20	301
17	60.641	37	61.21	103	16.20	3	65.63	371	24.627	10	66.53	323	42.72	4	44.19	309
27	60.678	79	60.18	80	16.17	11	61.92	377	24.637	73	63.30	336	42.68	18	41.10	307
Okt. 7	60.757	124	59.38	53	16.28	28	58.15	374	24.710	139	59.94	344	42.86	39	38.03	291
17	60.881	169	58.85	20	16.56	44	54.41	364	24.849	206	56.50	344	43.25	60	35.12	265
27	61.050	215	58.65	17	17.00	60	50.77	345	25.055	273	53.06	336	43.85	80	32.47	227
Nov. 6	61.265	256	58.82	56	17.60	75	47.32	316	25.328	337	49.70	319	44.65	96	30.20	179
16	61.521	292	59.38	94	18.35	88	44.16	278	25.665	396	46.51	294	45.61	111	28.41	124
26	61.813	320	60.32	131	19.23	100	41.38	234	26.061	445	43.57	261	46.72	121	27.17	64
Dez. 6	62.133	338	61.63	165	20.23	108	39.04	179	26.506	483	40.96	218	47.93	127	26.53	0
16	62.471	345	63.28	193	21.31	114	37.25	120	26.989	505	38.78	168	49.20	129	26.53	65
26	62.816	341	65.21	216	22.45	116	36.05	57	27.494	511	37.10	114	50.49	127	27.18	127
36	63.157		67.37		23.61		35.48		28.005		35.96		51.76		28.45	
Mittl. Ort	59.021		49.98		21.92		78.57		25.029		76.90		43.51		24.98	
sec δ, tg δ	1.081		−0.410		4.792		+4.687		1.855		+1.562		5.229		−5.132	
a, a'	+3.1		−20.0		+2.8		−20.0		+3.0		−20.0		+3.5		−20.0	
b, b'	+0.03		+ 0.03		−0.31		+ 0.04		−0.10		+ 0.05		+0.34		+ 0.06	

Tag	460) η Virginis AR.		460) η Virginis Dekl.		462) α Crucis med. AR.		462) α Crucis med. Dekl.		466) 20 Comae AR.		466) 20 Comae Dekl.		465) δ Corvi AR.		465) δ Corvi Dekl.	
1939	$12^h\ 16^m$		−0° 19′		$12^h\ 23^m$		−62° 45′		$12^h\ 26^m$		+21° 13′		$12^h\ 26^m$		−16° 10′	
	s		″		s		″		s		″		s		″	
Jan. 1	47.959	321	46.53	207	13.60	59	28.92	185	40.179	338	48.10	177	43.287	332	33.65	216
11	48.280	304	48.60	194	14.19	55	30.77	232	40.517	323	46.33	142	43.619	315	35.81	222
21	48.584	277	50.54	176	14.74	50	33.09	272	40.840	299	44.91	104	43.934	289	38.03	221
31	48.861	244	52.30	154	15.24	44	35.81	305	41.139	265	43.87	63	44.223	257	40.24	212
Febr. 10	49.105	206	53.84	128	15.68	37	38.86	328	41.404	227	43.24	22	44.480	218	42.36	200
20	49.311	166	55.12	100	16.05	30	42.14	342	41.631	184	43.02	17	44.698	178	44.36	182
März 2	49.477	124	56.12	72	16.35	22	45.56	349	41.815	140	43.19	53	44.876	137	46.18	162
12	49.601	85	56.84	46	16.57	15	49.05	348	41.955	96	43.72	83	45.013	97	47.80	140
22	49.686	47	57.30	21	16.72	7	52.53	338	42.051	55	44.55	108	45.110	60	49.20	117
31	[27] 49.733	13	57.51	1	[29] 16.79	1	55.91	323	[30] 42.106	16	45.63	126	[30] 45.170	26	50.37	95
Apr. 10	49.746	15	57.50	20	16.80	6	59.14	301	42.122	17	46.89	138	45.196	4	51.32	72
20	49.731	40	57.30	35	16.74	12	62.15	273	42.105	45	48.27	142	45.192	31	52.04	50
30	49.691	60	56.95	47	16.62	17	64.88	240	42.060	70	49.69	142	45.161	52	52.54	29
Mai 10	49.631	76	56.48	57	16.45	23	67.28	202	41.990	88	51.11	134	45.109	71	52.83	9
20	49.555	89	55.91	63	16.22	26	69.30	161	41.902	103	52.45	124	45.038	86	52.92	9
30	49.466	98	55.28	68	15.96	29	70.91	115	41.799	114	53.69	108	44.952	99	52.83	27
Juni 9	49.368	105	54.60	70	15.67	32	72.06	67	41.685	122	54.77	90	44.853	107	52.56	43
19	49.263	108	53.90	70	15.35	34	72.73	18	41.563	125	55.67	70	44.746	114	52.13	59
29	49.155	108	53.20	69	15.01	35	72.91	31	41.438	126	56.37	47	44.632	118	51.54	73
Juli 9	49.047	106	52.51	65	14.66	35	72.60	79	41.312	123	56.84	24	44.514	117	50.81	84
19	48.941	100	51.86	60	14.31	33	71.81	126	41.189	117	57.08	1	44.397	113	49.97	93
29	48.841	91	51.26	52	13.98	31	70.55	169	41.072	107	57.07	26	44.284	105	49.04	100
Aug. 8	48.750	76	50.74	42	13.67	27	68.86	206	40.965	93	56.81	51	44.179	92	48.04	102
18	48.674	59	50.32	30	13.40	23	66.80	237	40.872	73	56.30	77	44.087	74	47.02	101
28	48.615	35	50.02	13	13.17	16	64.43	260	40.799	50	55.53	103	44.013	48	46.01	95
Sept. 7	48.580	6	49.89	5	13.01	8	61.83	274	40.749	21	54.50	128	43.965	19	45.06	84
17	48.574	26	49.94	26	12.93	1	59.09	277	40.728	13	53.22	153	43.946	16	44.22	68
27	48.600	64	50.20	50	12.92	9	56.32	270	40.741	51	51.69	177	43.962	57	43.54	46
Okt. 7	48.664	105	50.70	76	13.01	17	53.62	252	40.792	92	49.92	199	44.019	100	43.08	20
17	48.769	148	51.46	103	13.18	27	51.10	222	40.884	137	47.93	218	44.119	145	42.88	10
27	48.917	189	52.49	129	13.45	36	48.88	183	41.021	183	45.75	233	44.264	191	42.98	42
Nov. 6	49.106	230	53.78	154	13.81	43	47.05	136	41.204	225	43.42	243	44.455	234	43.40	77
16	49.336	265	55.32	176	14.24	50	45.69	82	41.429	264	40.99	248	44.689	271	44.17	110
26	49.601	294	57.08	194	14.74	55	44.87	24	41.693	297	38.51	246	44.960	301	45.27	142
Dez. 6	49.895	314	59.02	206	15.29	59	44.63	35	41.990	322	36.05	236	45.261	324	46.69	169
16	50.209	325	61.08	211	15.88	60	44.98	95	42.312	336	33.69	219	45.585	334	48.38	193
26	50.534	324	63.19	210	16.48	59	45.93	151	42.648	340	31.50	194	45.919	335	50.31	208
36	50.858		65.29		17.07		47.44		42.988		29.56		46.254		52.39	
Mittl. Ort	47.057		40.68		11.67		42.05		39.531		61.04		42.296		33.74	
sec δ, tg δ	1.000		−0.006		2.185		−1.943		1.073		+0.389		1.041		−0.290	
a, *a′*	+3.1		−20.0		+3.3		−19.9		+3.0		−19.9		+3.1		−19.9	
b, *b′*	0.00		+ 0.07		+0.13		+ 0.10		−0.03		+ 0.12		+0.02		+ 0.12	

Scheinbare Sternörter 1939

Tag	470) 8 Canum ven.[1] AR.		Dekl.		472) ϰ Draconis AR.		Dekl.		471) β Corvi AR.		Dekl.		473) 24 Comae seq. AR.		Dekl.	
1939	$12^h\ 30^m$		+41° 40′		$12^h\ 30^m$		+70° 6′		$12^h\ 31^m$		−23° 3′		$12^h\ 32^m$		+18° 42′	
	s		″		s		″		s		″		s		″	
Jan. 1	51.432	393	60.06	136	52.89	74	63.41	67	11.706	343	32.20	215	4.941	335	33.41	183
11	51.825	379	58.70	83	53.63	72	62.74	2	12.049	327	34.35	227	5.276	321	31.58	151
21	52.204	352	57.87	30	54.35	68	62.72	63	12.376	301	36.62	233	5.597	297	30.07	115
31	52.556	315	57.57	23	55.03	61	63.35	124	12.677	268	38.95	233	5.894	266	28.92	76
Febr. 10	52.871	269	57.80	75	55.64	52	64.59	179	12.945	229	41.28	225	6.160	229	28.16	37
20	53.140	218	58.55	121	56.16	41	66.38	227	13.174	188	43.53	213	6.389	187	27.79	2
März 2	53.358	163	59.76	160	56.57	30	68.65	264	13.362	146	45.66	197	6.576	143	27.81	38
12	53.521	108	61.36	192	56.87	18	71.29	290	13.508	105	47.63	178	6.719	101	28.19	69
22	53.629	54	63.28	214	57.05	6	74.19	304	13.613	67	49.41	157	6.820	61	28.88	94
31	^{31}53.683	4	65.42	226	^{31}57.11	6	77.23	306	^{31}13.680	32	50.98	135	^{31}6.881	23	29.82	113
Apr. 10	53.687	41	67.68	229	57.05	17	80.29	295	13.712	0	52.33	111	6.904	10	30.95	127
20	53.646	79	69.97	223	56.88	26	83.24	275	13.712	28	53.44	88	6.894	38	32.22	133
30	53.567	113	72.20	209	56.62	35	85.99	244	13.684	51	54.32	64	6.856	62	33.55	134
Mai 10	53.454	138	74.29	187	56.27	41	88.43	206	13.633	71	54.96	41	6.794	82	34.89	129
20	53.316	159	76.16	160	55.86	47	90.49	163	13.562	89	55.37	18	6.712	96	36.18	120
30	53.157	173	77.76	128	55.39	50	92.12	113	13.473	102	55.55	5	6.616	109	37.38	108
Juni 9	52.984	182	79.04	92	54.89	53	93.25	62	13.371	114	55.50	28	6.507	116	38.46	92
19	52.802	187	79.96	56	54.36	53	93.87	8	13.257	121	55.22	49	6.391	121	39.38	73
29	52.615	185	80.52	16	53.83	52	93.95	45	13.136	126	54.73	69	6.270	123	40.11	53
Juli 9	52.430	180	80.68	24	53.31	51	93.50	97	13.010	127	54.04	87	6.147	122	40.64	32
19	52.250	171	80.44	62	52.80	47	92.53	146	12.883	124	53.17	102	6.025	116	40.96	9
29	52.079	156	79.82	100	52.33	43	91.07	193	12.759	116	52.15	116	5.909	108	41.05	14
Aug. 8	51.923	136	78.82	137	51.90	38	89.14	236	12.643	102	50.99	124	5.801	95	40.91	38
18	51.787	111	77.45	172	51.52	32	86.78	274	12.541	83	49.75	128	5.706	77	40.53	63
28	51.676	82	75.73	203	51.20	24	84.04	306	12.458	57	48.47	126	5.629	53	39.90	88
Sept. 7	51.594	45	73.70	232	50.96	16	80.98	333	12.401	26	47.21	120	5.576	26	39.02	114
17	51.549	4	71.38	257	50.80	7	77.65	353	12.375	11	46.01	107	5.550	8	37.88	138
27	51.545	41	68.81	278	50.73	2	74.12	367	12.386	54	44.94	87	5.558	45	36.50	162
Okt. 7	51.586	91	66.03	295	50.75	13	70.45	373	12.440	99	44.07	62	5.603	87	34.88	185
17	51.677	143	63.08	305	50.88	22	66.72	369	12.539	147	43.45	31	5.690	131	33.03	205
27	51.820	197	60.03	309	51.10	33	63.03	358	12.686	195	43.14	3	5.821	176	30.98	223
Nov. 6	52.017	248	56.94	305	51.43	44	59.45	338	12.881	240	43.17	39	5.997	219	28.75	235
16	52.265	295	53.89	293	51.87	53	56.07	307	13.121	279	43.56	78	6.216	259	26.40	241
26	52.560	336	50.96	274	52.40	61	53.00	269	13.400	311	44.34	115	6.475	291	23.99	243
Dez. 6	52.896	367	48.22	245	53.01	68	50.31	221	13.711	334	45.49	148	6.766	316	21.56	235
16	53.263	387	45.77	208	53.69	72	48.10	167	14.045	346	46.97	178	7.082	332	19.21	221
26	53.650	395	43.69	164	54.41	74	46.43	106	14.391	346	48.75	202	7.414	336	17.00	199
36	54.045		42.05		55.15		45.37		14.737		50.77		7.750		15.01	
Mittl. Ort	51.051		78.82		53.42		87.19		10.670		34.82		4.304		45.36	
sec δ, tg δ	1.339		+0.891		2.941		+2.766		1.087		−0.426		1.056		+0.339	
a, a'	+2.9		−19.9		+2.6		−19.9		+3.2		−19.9		+3.0		−19.8	
b, b'	−0.06		+ 0.13		−0.18		+ 0.13		+0.03		+ 0.14		−0.02		+ 0.14	

[1]) Die jährliche Parallaxe (0.″107) ist bereits berücksichtigt.

Tag	474) α Muscae				476) γ Centauri				478) 76 Ursae maj.				481) β Crucis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$12^h\ 33^m$		$-68°\ 47'$		$12^h\ 38^m$		$-48°\ 37'$		$12^h\ 38^m$		$+63°\ 2'$		$12^h\ 44^m$		$-59°\ 21'$	
	s		"		s		"		s		"		s		"	
Jan. 1	33.67	72	45.10	160	9.829	442	19.86	188	54.25	58	29.09	96	10.051	548	7.28	164
11	34.39	69	46.70	212	10.271	422	21.74	227	54.83	57	28.13	32	10.599	524	8.92	210
21	35.08	63	48.82	257	10.693	389	24.01	257	55.40	54	27.81	31	11.123	486	11.02	250
31	35.71	56	51.39	294	11.082	346	26.58	280	55.94	48	28.12	93	11.609	435	13.52	283
Febr. 10	36.27	47	54.33	323	11.428	299	29.38	295	56.42	42	29.05	150	12.044	378	16.35	306
20	36.74	39	57.56	343	11.727	247	32.33	303	56.84	34	30.55	199	12.422	313	19.41	323
März 2	37.13	30	60.99	355	11.974	193	35.36	303	57.18	26	32.54	240	12.735	248	22.64	331
12	37.43	21	64.54	358	12.167	140	38.39	298	57.44	16	34.94	270	12.983	179	25.95	331
22	$_{31}$37.64	11	68.12	354	12.307	89	41.37	285	57.60	7	37.64	288	13.162	118	29.26	325
31*)	37.75	2	71.66	342	$_2$12.396	41	44.22	268	$_2$57.67	1	40.52	294	$_3$13.280	54	32.51	312
Apr. 10	37.77	6	75.08	324	12.437	4	46.90	247	57.66	9	43.46	289	13.334	6	35.63	293
20	37.71	14	78.32	298	12.433	44	49.37	220	57.57	17	46.35	274	13.328	60	38.56	268
30	37.57	21	81.30	267	12.389	81	51.57	190	57.40	22	49.09	248	13.268	111	41.24	239
Mai 10	37.36	27	83.97	231	12.308	113	53.47	158	57.18	28	51.57	216	13.157	157	43.63	205
20	37.09	33	86.28	190	12.195	142	55.05	122	56.90	32	53.73	175	13.000	199	45.68	166
30	36.76	39	88.18	144	12.053	167	56.27	83	56.58	35	55.48	131	12.801	233	47.34	125
Juni 9	36.37	42	89.62	95	11.886	187	57.10	43	56.23	36	56.79	83	12.568	263	48.59	80
19	35.95	45	90.57	45	11.699	202	57.53	3	55.87	38	57.62	32	12.305	285	49.39	34
29	35.50	46	91.02	7	11.497	211	57.56	38	55.49	37	57.94	18	12.020	300	49.73	13
Juli 9	35.04	47	90.95	59	11.286	214	57.18	77	55.12	36	57.76	69	11.720	305	49.60	60
19	34.57	45	90.36	109	11.072	210	56.41	115	54.76	34	57.07	118	11.415	301	49.00	105
29	34.12	42	89.27	156	10.862	199	55.26	149	54.42	32	55.89	164	11.114	286	47.95	147
Aug. 8	33.70	38	87.71	198	10.663	179	53.77	179	54.10	28	54.25	208	10.828	259	46.48	184
18	33.32	32	85.73	234	10.484	149	51.98	203	53.82	24	52.17	246	10.569	220	44.64	217
28	33.00	24	83.39	263	10.335	112	49.95	220	53.58	18	49.71	281	10.349	170	42.47	241
Sept. 7	32.76	15	80.76	281	10.223	65	47.75	228	53.40	13	46.90	311	10.179	109	40.06	258
17	32.61	5	77.95	290	10.158	11	45.47	228	53.27	6	43.79	334	10.070	37	37.48	263
27	32.56	7	75.05	288	10.147	50	43.19	218	53.21	1	40.45	351	10.033	41	34.85	260
Okt. 7	32.63	19	72.17	274	10.197	114	41.01	199	53.22	9	36.94	361	10.074	125	32.25	245
17	32.82	30	69.43	248	10.311	180	39.02	170	53.31	17	33.33	363	10.199	210	29.80	220
27	33.12	41	66.95	213	10.491	246	37.32	134	53.48	25	29.70	357	10.409	293	27.60	185
Nov. 6	33.53	51	64.82	167	10.737	305	35.98	90	53.73	33	26.13	342	10.702	370	25.75	142
16	34.04	60	63.15	115	11.042	358	35.08	42	54.06	41	22.71	317	11.072	436	24.33	92
26	34.64	67	62.00	58	11.400	400	34.66	10	54.47	47	19.54	283	11.508	490	23.41	37
Dez. 6	35.31	71	61.42	3	11.800	430	34.76	62	54.94	53	16.71	241	11.998	528	23.04	19
16	36.02	73	61.45	65	12.230	445	35.38	113	55.47	56	14.30	190	12.526	548	23.23	77
26	36.75	73	62.10	124	12.675	445	36.51	161	56.03	58	12.40	132	13.074	551	24.00	131
36	37.48		63.34		13.120		38.12		56.61		11.08		13.625		25.31	
Mittl. Ort	31.51		59.62		8.470		30.40		54.53		51.76		8.467		20.47	
sec δ, tg δ	2.765		−2.578		1.513		−1.135		2.206		+1.967		1.962		−1.688	
$a,\ a'$	+3.6		−19.8		+3.3		−19.8		+2.6		−19.8		+3.5		−19.7	
$b,\ b'$	+0.17		+ 0.15		+0.07		+ 0.17		−0.13		+ 0.17		+0.11		+ 0.19	

*) Bei Stern 476), 478) und 481) lies April 1.

Scheinbare Sternörter 1939

Tag	482) η Centauri AR.		482) η Centauri Dekl.		483) ε Ursae maj. AR.		483) ε Ursae maj. Dekl.		484) δ Virginis AR.		484) δ Virginis Dekl.		486) 8 Draconis AR.		486) 8 Draconis Dekl.	
1939	12h 50m		−39° 50′		12h 51m		+56° 16′		12h 52m		+3° 43′		12h 53m		+65° 45′	
Jan. 1	4.063	399	43.17	188	20.936	493	64.89	127	32.439	324	36.33	204	2.57	63	46.10	107
11	4.462	383	45.05	217	21.429	485	63.62	66	32.763	314	34.29	188	3.20	62	45.03	43
21	4.845	356	47.22	242	21.914	460	62.96	4	33.077	294	32.41	167	3.82	59	44.60	22
31	5.201	321	49.64	259	22.374	421	62.92	57	33.371	267	30.74	140	4.41	55	44.82	86
Febr. 10	5.522	281	52.23	267	22.795	368	63.49	115	33.638	234	29.34	111	4.96	47	45.68	145
20	5.803	236	54.90	270	23.163	305	64.64	167	33.872	196	28.23	80	5.43	40	47.13	197
März 2	6.039	189	57.60	267	23.468	237	66.31	211	34.068	158	27.43	49	5.83	30	49.10	240
12	6.228	144	60.27	257	23.705	165	68.42	244	34.226	119	26.94	21	6.13	21	51.50	272
22	6.372	99	62.84	243	23.870	92	70.86	267	34.345	82	26.73	6	6.34	10	54.22	293
Apr. 1	6.471	58	65.27	226	23.962	22	73.53	280	34.427	48	26.79	29	6.44	2	57.15	302
10	6.529	20	67.53	205	23.984	43	76.33	280	34.475	16	27.08	47	6.46	8	60.17	299
20	6.549	16	69.58	180	23.941	101	79.13	270	34.491	10	27.55	62	6.38	17	63.16	286
30	6.533	47	71.38	154	23.840	153	81.83	251	34.481	34	28.17	72	6.21	23	66.02	262
Mai 10	6.486	77	72.92	124	23.687	195	84.34	224	34.447	54	28.89	79	5.98	30	68.64	229
20	6.409	101	74.16	94	23.492	230	86.58	189	34.393	72	29.68	82	5.68	34	70.93	190
30	6.308	123	75.10	61	23.262	257	88.47	149	34.321	86	30.50	83	5.34	39	72.83	145
Juni 9	6.185	142	75.71	28	23.005	275	89.96	105	34.235	97	31.33	80	4.95	41	74.28	97
19	6.043	157	75.99	6	22.730	286	91.01	59	34.138	106	32.13	75	4.54	42	75.25	46
29	5.886	167	75.93	40	22.444	289	91.60	10	34.032	113	32.88	70	4.12	43	75.71	7
Juli 9	5.719	173	75.53	73	22.155	286	91.70	38	33.919	116	33.58	61	3.69	42	75.64	59
19	5.546	172	74.80	104	21.869	275	91.32	85	33.803	115	34.19	51	3.27	41	75.05	108
29	5.374	165	73.76	131	21.594	257	90.47	130	33.688	110	34.70	39	2.86	37	73.97	157
Aug. 8	5.209	151	72.45	155	21.337	233	89.17	174	33.578	102	35.09	26	2.49	34	72.40	202
18	5.058	130	70.90	174	21.104	201	87.43	214	33.476	87	35.35	10	2.15	30	70.38	243
28	4.928	100	69.16	186	20.903	162	85.29	251	33.389	67	35.45	7	1.85	25	67.95	280
Sept. 7	4.828	62	67.30	191	20.741	117	82.78	283	33.322	42	35.38	27	1.60	18	65.15	311
17	4.766	17	65.39	189	20.624	63	79.95	309	33.280	10	35.11	49	1.42	11	62.04	336
27	4.749	34	63.50	178	20.561	4	76.86	330	33.270	26	34.62	73	1.31	3	58.68	355
Okt. 7	4.783	90	61.72	158	20.557	61	73.56	346	33.296	68	33.89	97	1.28	6	55.13	367
17	4.873	148	60.14	131	20.618	129	70.10	353	33.364	111	32.92	123	1.34	14	51.46	371
27	5.021	206	58.83	97	20.747	198	66.57	352	33.475	156	31.69	147	1.48	24	47.75	365
Nov. 6	5.227	260	57.86	57	20.945	267	63.05	343	33.631	199	30.22	169	1.72	32	44.10	352
16	5.487	308	57.29	13	21.212	333	59.62	324	33.830	239	28.53	189	2.04	41	40.58	328
26	5.795	349	57.16	34	21.545	390	56.38	297	34.069	274	26.64	204	2.45	49	37.30	295
Dez. 6	6.144	378	57.50	80	21.935	437	53.41	260	34.343	300	24.60	212	2.94	55	34.35	253
16	6.522	395	58.30	124	22.372	471	50.81	214	34.643	317	22.48	214	3.49	59	31.82	202
26	6.917	399	59.54	164	22.843	491	48.67	161	34.960	324	20.34	210	4.08	62	29.80	144
36	7.316		61.18		23.334		47.06		35.284		18.24		4.70		28.36	
Mittl. Ort	2.940		51.71		21.112		86.02		31.786		42.41		3.22		68.59	
sec δ, tg δ	1.303		−0.835		1.802		+1.499		1.002		+0.065		2.437		+2.222	
a, *a′*	+3.3		−19.6		+2.6		−19.5		+3.1		−19.5		+2.4		−19.5	
b, *b′*	+0.05		+ 0.22		−0.10		+ 0.22		0.00		+ 0.23		−0.14		+ 0.23	

Tag	485) 12 Can. ven. seq. AR.		485) Dekl.		488) ε Virginis AR.		488) Dekl.	
1939	$12^h\ 53^m$		+38° 38′		$12^h\ 59^m$		+11° 16′	
Jan. 1	10.897	381	33.49	164	8.958	328	63.23	200
11	11.278	373	31.85	114	9.286	319	61.23	177
21	11.651	352	30.71	62	9.605	301	59.46	147
31	12.003	321	30.09	8	9.906	274	57.99	114
Febr. 10	12.324	282	30.01	45	10.180	241	56.85	79
20	12.606	235	30.46	93	10.421	205	56.06	42
März 2	12.841	186	31.39	136	10.626	165	55.64	8
12	13.027	135	32.75	171	10.791	126	55.56	24
22	13.162	84	34.46	198	10.917	88	55.80	51
Apr. 1	13.246	36	36.44	216	11.005	53	56.31	75
	5				7			
10	13.282	7	38.60	224	11.058	21	57.06	92
20	13.275	45	40.84	223	11.079	8	57.98	103
30	13.230	80	43.07	214	11.071	33	59.01	111
Mai 10	13.150	108	45.21	198	11.038	55	60.12	112
20	13.042	131	47.19	175	10.983	73	61.24	110
30	12.911	150	48.94	146	10.910	88	62.34	105
Juni 9	12.761	163	50.40	115	10.822	101	63.39	95
19	12.598	171	51.55	79	10.721	110	64.34	83
29	12.427	176	52.34	42	10.611	117	65.17	69
Juli 9	12.251	177	52.76	4	10.494	121	65.86	54
19	12.074	172	52.80	34	10.373	120	66.40	37
29	11.902	162	52.46	72	10.253	117	66.77	19
Aug. 8	11.740	148	51.74	109	10.136	108	66.96	2
18	11.592	128	50.65	145	10.028	94	66.94	22
28	11.464	102	49.20	179	9.934	75	66.72	44
Sept. 7	11.362	70	47.41	210	9.859	50	66.28	68
17	11.292	32	45.31	238	9.809	19	65.60	92
27	11.260	11	42.93	262	9.790	18	64.68	117
Okt. 7	11.271	59	40.31	282	9.808	59	63.51	142
17	11.330	111	37.49	298	9.867	103	62.09	165
27	11.441	164	34.51	306	9.970	148	60.44	187
Nov. 6	11.605	216	31.45	308	10.118	193	58.57	205
16	11.821	265	28.37	301	10.311	235	56.52	219
26	12.086	308	25.36	287	10.546	270	54.33	228
Dez. 6	12.394	343	22.49	263	10.816	298	52.05	229
16	12.737	367	19.86	231	11.114	318	49.76	224
26	13.104	379	17.55	191	11.432	326	47.52	211
36	13.483		15.64		11.758		45.41	
Mittl. Ort	10.669		50.65		8.420		71.72	
sec δ, tg δ	1.280		+0.800		1.020		+0.200	
a, *a′*	+2.8		−19.5		+3.0		−19.4	
b, *b′*	−0.05		+ 0.23		−0.01		+ 0.26	

Tag	490) ϑ Virginis AR.		490) Dekl.		492) 43 Comae[1]) AR.		492) Dekl.	
1939	$13^h\ 6^m$		−5° 12′		$13^h\ 9^m$		+28° 10′	
Jan. 1	48.007	328	52.38	204	2.001	349	59.16	187
11	48.335	319	54.42	198	2.350	342	57.29	146
21	48.654	301	56.40	186	2.692	326	55.83	101
31	48.955	276	58.26	169	3.018	300	54.82	54
Febr. 10	49.231	244	59.95	148	3.318	266	54.28	6
20	49.475	209	61.43	123	3.584	227	54.22	41
März 2	49.684	172	62.66	98	3.811	184	54.63	83
12	49.856	136	63.64	71	3.995	140	55.46	119
22	49.992	99	64.35	47	4.135	97	56.65	149
Apr. 1	50.091	65	64.82	24	4.232	56	58.14	171
	9				9			
10	50.156	35	65.06	4	4.288	18	59.85	185
20	50.191	7	65.10	13	4.306	16	61.70	191
30	50.198	17	64.97	28	4.290	46	63.61	189
Mai 10	50.181	39	64.69	41	4.244	72	65.50	181
20	50.142	59	64.28	50	4.172	95	67.31	166
30	50.083	75	63.78	57	4.077	112	68.97	147
Juni 9	50.008	89	63.21	62	3.965	127	70.44	123
19	49.919	101	62.59	66	3.838	139	71.67	97
29	49.818	111	61.93	68	3.699	146	72.64	67
Juli 9	49.707	116	61.25	68	3.553	149	73.31	37
19	49.591	118	60.57	67	3.404	150	73.68	5
29	49.473	116	59.90	63	3.254	145	73.73	27
Aug. 8	49.357	110	59.27	57	3.109	135	73.46	60
18	49.247	97	58.70	48	2.974	121	72.86	91
28	49.150	78	58.22	36	2.853	99	71.95	123
Sept. 7	49.072	53	57.86	22	2.754	72	70.72	153
17	49.019	22	57.64	4	2.682	40	69.19	181
27	48.997	14	57.60	17	2.642	0	67.38	207
Okt. 7	49.011	56	57.77	42	2.642	43	65.31	231
17	49.067	101	58.19	67	2.685	90	63.00	251
27	49.168	147	58.86	94	2.775	139	60.49	266
Nov. 6	49.315	192	59.80	121	2.914	188	57.83	275
16	49.507	234	61.01	147	3.102	235	55.08	278
26	49.741	269	62.48	168	3.337	275	52.30	273
Dez. 6	50.010	298	64.16	186	3.612	308	49.57	259
16	50.308	317	66.02	198	3.920	332	46.98	238
26	50.625	325	68.00	203	4.252	345	44.60	208
36	50.950		70.03		4.597		42.52	
Mittl. Ort	47.354		49.96		1.722		72.78	
sec δ, tg δ	1.004		−0.091		1.135		+0.536	
a, *a′*	+3.1		−19.2		+2.9		−19.1	
b, *b′*	+0.01		+ 0.29		−0.03		+ 0.30	

[1]) Die jährliche Parallaxe (0″133) ist bereits berücksichtigt.

Scheinbare Sternörter 1939

Tag	495) γ Hydrae AR.	Diff.	495) γ Hydrae Dekl.	Diff.	496) ι Centauri AR.	Diff.	496) ι Centauri Dekl.	Diff.	497) ζ Ursae maj. pr. AR.	Diff.	497) ζ Ursae maj. pr. Dekl.	Diff.	498) α Virginis AR.	Diff.	498) α Virginis Dekl.	Diff.
1939	$13^h\ 15^m$		$-22°\ 50'$		$13^h\ 17^m$		$-36°\ 23'$		$13^h\ 21^m$		$+55°\ 13'$		$13^h\ 21^m$		$-10°\ 50'$	
	s		"		s		"		s		"		s		"	
Jan. 1	36.815	350	57.38	187	10.443	388	19.87	166	27.923	474	76.80	163	59.190	332	36.62	196
11	37.165	341	59.25	201	10.831	378	21.53	195	28.397	477	75.17	103	59.522	325	38.58	198
21	37.506	323	61.26	209	11.209	359	23.48	217	28.874	462	74.14	41	59.847	310	40.56	192
31	37.829	298	63.35	211	11.568	330	25.65	232	29.336	432	73.73	22	60.157	287	42.48	181
Febr. 10	38.127	266	65.46	206	11.898	296	27.97	241	29.768	390	73.95	83	60.444	257	44.29	165
20	38.393	230	67.52	196	12.194	256	30.38	243	30.158	336	74.78	140	60.701	224	45.94	146
März 2	38.623	192	69.48	183	12.450	214	32.81	240	30.494	274	76.18	188	60.925	188	47.40	124
12	38.815	154	71.31	167	12.664	173	35.21	232	30.768	209	78.06	228	61.113	152	48.64	101
22	38.969	117	72.98	149	12.837	131	37.53	219	30.977	140	80.34	259	61.265	116	49.65	78
Apr. 1	39.086	82	74.47	129	12.968	91	39.72	204	31.117	73	82.93	278	61.381	83	50.43	57
11	(11) 39.168	49	75.76	109	(12) 13.059	55	41.76	187	(13) 31.190	9	85.71	286	(13) 61.464	53	51.00	36
20	39.217	20	76.85	89	13.114	19	43.63	165	31.199	51	88.57	283	61.517	23	51.36	18
30	39.237	8	77.74	69	13.133	13	45.28	142	31.148	106	91.40	269	61.540	2	51.54	1
Mai 10	39.229	33	78.43	48	13.120	42	46.70	118	31.042	152	94.09	248	61.538	26	51.55	13
20	39.196	56	78.91	28	13.078	70	47.88	91	30.890	193	96.57	218	61.512	47	51.42	26
30	39.140	76	79.19	8	13.008	95	48.79	63	30.697	227	98.75	181	61.465	67	51.16	37
Juni 9	39.064	94	79.27	10	12.913	116	49.42	35	30.470	252	100.56	140	61.398	83	50.79	47
19	38.970	109	79.17	30	12.797	136	49.77	5	30.218	272	101.96	95	61.315	98	50.32	55
29	38.861	122	78.87	48	12.661	151	49.82	24	29.946	284	102.91	49	61.217	110	49.77	61
Juli 9	38.739	131	78.39	65	12.510	162	49.58	54	29.662	288	103.40	0	61.107	119	49.16	67
19	38.608	135	77.74	80	12.348	167	49.04	82	29.374	287	103.40	49	60.988	124	48.49	70
29	38.473	135	76.94	94	12.181	167	48.22	107	29.087	277	102.91	96	60.864	125	47.79	72
Aug. 8	38.338	128	76.00	104	12.014	158	47.15	130	28.810	261	101.95	142	60.739	120	47.07	71
18	38.210	115	74.96	110	11.856	142	45.85	148	28.549	236	100.53	185	60.619	109	46.36	68
28	38.095	95	73.86	112	11.714	119	44.37	160	28.313	203	98.68	225	60.510	91	45.68	60
Sept. 7	38.000	68	72.74	109	11.595	87	42.77	167	28.110	163	96.43	261	60.419	68	45.08	50
17	37.932	34	71.65	101	11.508	46	41.10	167	27.947	114	93.82	293	60.351	37	44.58	35
27	37.898	7	70.64	87	11.462	1	39.43	159	27.833	59	90.89	319	60.314	0	44.23	17
Okt. 7	37.905	52	69.77	66	11.463	54	37.84	143	27.774	3	87.70	339	60.314	43	44.06	5
17	37.957	102	69.11	42	11.517	110	36.41	121	27.777	71	84.31	352	60.357	88	44.11	30
27	38.059	152	68.69	12	11.627	168	35.20	91	27.848	141	80.79	358	60.445	136	44.41	58
Nov. 6	38.211	201	68.57	20	11.795	223	34.29	55	27.989	212	77.21	355	60.581	182	44.99	86
16	38.412	247	68.77	55	12.018	274	33.74	15	28.201	280	73.66	342	60.763	227	45.85	114
26	38.659	286	69.32	89	12.292	318	33.59	26	28.481	342	70.24	320	60.990	265	46.99	140
Dez. 6	38.945	316	70.21	122	12.610	351	33.85	68	28.823	396	67.04	287	61.255	295	48.39	162
16	39.261	337	71.43	150	12.961	374	34.53	108	29.219	438	64.17	247	61.550	317	50.01	180
26	39.598	347	72.93	175	13.335	384	35.61	145	29.657	466	61.70	197	61.867	328	51.81	192
36	39.945		74.68		13.719		37.06		30.123		59.73		62.195		53.73	
Mittl. Ort	36.048		61.36		9.547		28.18		28.410		96.38		58.572		36.70	
sec δ, tg δ	1.085		−0.421		1.242		−0.737		1.754		+1.441		1.018		−0.192	
a, *a'*	+3.3		−19.0		+3.4		−18.9		+2.4		−18.8		+3.2		−18.8	
b, *b'*	+0.03		+ 0.32		+0.05		+ 0.33		−0.09		+ 0.35		+0.01		+ 0.35	

Obere Kulmination Greenwich

Tag	499) Grb 2001				500) 69 H. Urs. maj.				501) ζ Virginis				502) 17 H. Can. ven.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$13^h\ 24^m$		$+72°\ 41'$		$13^h\ 26^m$		$+60°\ 15'$		$13^h\ 31^m$		$-0°\ 17'$		$13^h\ 32^m$		$+37°\ 29'$	
	s		"		s		"		s		"		s		"	
Jan. 1	32.60	81	66.61	132	12.17	52	17.33	159	35.445	324	8.34	202	4.420	370	24.43	197
11	33.41	82	65.29	67	12.69	53	15.74	97	35.769	320	10.36	192	4.790	372	22.46	150
21	34.23	80	64.62	1	13.22	52	14.77	33	36.089	307	12.28	175	5.162	360	20.96	98
31	35.03	76	64.63	67	13.74	49	14.44	32	36.396	286	14.03	153	5.522	338	19.98	43
Febr. 10	35.79	69	65.30	130	14.23	44	14.76	94	36.682	259	15.56	128	5.860	306	19.55	12
20	36.48	60	66.60	186	14.67	38	15.70	151	36.941	227	16.84	99	6.166	268	19.67	65
März 2	37.08	48	68.46	235	15.05	32	17.21	202	37.168	192	17.83	70	6.434	224	20.32	112
12	37.56	36	70.81	273	15.37	24	19.23	243	37.360	157	18.53	41	6.658	178	21.44	154
22	37.92	22	73.54	300	15.61	16	21.66	272	37.517	122	18.94	15	6.836	131	22.98	188
Apr. 1	38.14	9	76.54	314	15.77	8	24.38	291	37.639	88	19.09	9	6.967	85	24.86	212
11	[13] 38.23	4	79.68	316	[14] 15.85	1	27.29	299	[15] 37.727	58	19.00	29	[15] 7.052	41	26.98	228
20	38.19	16	82.84	306	15.86	7	30.28	294	37.785	29	18.71	46	7.093	1	29.26	234
30	38.03	27	85.90	287	15.79	13	33.22	280	37.814	2	18.25	59	7.094	36	31.60	231
Mai 10	37.76	38	88.77	257	15.66	18	36.02	256	37.816	22	17.66	68	7.058	70	33.91	219
20	37.38	46	91.34	219	15.48	23	38.58	225	37.794	43	16.98	74	6.988	98	36.10	202
30	36.92	53	93.53	176	15.25	28	40.83	186	37.751	63	16.24	77	6.890	122	38.12	177
Juni 9	36.39	58	95.29	127	14.97	30	42.69	143	37.688	80	15.47	77	6.768	144	39.89	148
19	35.81	62	96.56	76	14.67	33	44.12	96	37.608	95	14.70	76	6.624	160	41.37	115
29	35.19	64	97.32	22	14.34	34	45.08	47	37.513	108	13.94	73	6.464	172	42.52	79
Juli 9	34.55	65	97.54	32	14.00	35	45.55	4	37.405	118	13.21	67	6.292	180	43.31	40
19	33.90	63	97.22	86	13.65	35	45.51	55	37.287	123	12.54	60	6.112	184	43.71	2
29	33.27	61	96.36	137	13.30	34	44.96	104	37.164	126	11.94	52	5.928	182	43.73	37
Aug. 8	32.66	58	94.99	185	12.96	31	43.92	151	37.038	122	11.42	41	5.746	175	43.36	77
18	32.08	52	93.14	230	12.65	29	42.41	195	36.916	113	11.01	28	5.571	161	42.59	115
28	31.56	45	90.84	270	12.36	25	40.46	237	36.803	97	10.73	14	5.410	140	41.44	152
Sept. 7	31.11	37	88.14	306	12.11	21	38.09	274	36.706	75	10.59	4	5.270	114	39.92	186
17	30.74	28	85.08	335	11.90	15	35.35	305	36.631	47	10.63	23	5.156	79	38.06	219
27	30.46	18	81.73	358	11.75	8	32.30	331	36.584	11	10.86	45	5.077	38	35.87	247
Okt. 7	30.28	6	78.15	373	11.67	2	28.99	351	36.573	29	11.31	68	5.039	8	33.40	273
17	30.22	6	74.42	380	11.65	6	25.48	364	36.602	74	11.99	93	5.047	60	30.67	293
27	30.28	18	70.62	379	11.71	14	21.84	368	36.676	120	12.92	119	5.107	114	27.74	307
Nov. 6	30.46	31	66.83	368	11.85	22	18.16	362	36.796	167	14.11	143	5.221	168	24.67	314
16	30.77	43	63.15	347	12.07	29	14.54	349	36.963	211	15.54	165	5.389	221	21.53	314
26	31.20	55	59.68	317	12.36	37	11.05	324	37.174	250	17.19	183	5.610	270	18.39	305
Dez. 6	31.75	65	56.51	277	12.73	43	7.81	289	37.424	282	19.02	196	5.880	311	15.34	287
16	32.40	73	53.74	227	13.16	48	4.92	247	37.706	305	20.98	204	6.191	342	12.47	259
26	33.13	79	51.47	170	13.64	52	2.45	194	38.011	319	23.02	205	6.533	363	9.88	223
36	33.92		49.77		14.16		0.51		38.330		25.07		6.896		7.65	
Mittl. Ort	34.57		88.31		12.96		37.50		34.982		5.08		4.482		39.55	
sec δ, tg δ	3.364		+3.212		2.016		+1.750		1.000		−0.005		1.260		+0.767	
a, *a′*	+1.5		−18.7		+2.2		−18.6		+3.1		−18.5		+2.7		−18.4	
b, *b′*	−0.20		+ 0.36		−0.11		+ 0.37		0.00		+ 0.39		−0.05		+ 0.39	

Scheinbare Sternörter 1939

Tag	504) ε Centauri AR.		504) ε Centauri Dekl.		507) τ Bootis AR.		507) τ Bootis Dekl.	
1939	$13^h\ 36^m$		$-53°\ 9'$		$13^h\ 44^m$		$+17°\ 45'$	
Jan. 1	1.425	493	12.70	110	21.978	327	27.15	212
11	1.918	486	13.80	155	22.305	328	25.03	182
21	2.404	467	15.35	192	22.633	317	23.21	147
31	2.871	437	17.27	225	22.950	300	21.74	108
Febr. 10	3.308	397	19.52	250	23.250	274	20.66	66
20	3.705	351	22.02	269	23.524	242	20.00	23
März 2	4.056	301	24.71	280	23.766	207	19.77	17
12	4.357	250	27.51	285	23.973	170	19.94	55
22	4.607	197	30.36	285	24.143	133	20.49	87
Apr. 1	4.804	145	33.21	278	24.276	97	21.36	115
11	[16] 4.949	94	35.99	267	[18] 24.373	63	22.51	134
21	5.043	45	38.66	250	24.436	31	23.85	148
Mai 1	5.088	2	41.16	229	24.467	1	25.33	155
11	5.086	46	43.45	205	24.468	26	26.88	156
21	5.040	90	45.50	175	24.442	49	28.44	151
31	4.950	128	47.25	142	24.393	72	29.95	141
Juni 10	4.822	165	48.67	107	24.321	91	31.36	127
20	4.657	197	49.74	68	24.230	108	32.63	110
30	4.460	222	50.42	28	24.122	122	33.73	89
Juli 10	4.238	241	50.70	13	24.000	133	34.62	68
20	3.997	253	50.57	54	23.867	140	35.30	43
30	3.744	255	50.03	94	23.727	142	35.73	18
Aug. 9	3.489	247	49.09	131	23.585	140	35.91	9
19	3.242	228	47.78	164	23.445	131	35.82	35
29	3.014	197	46.14	192	23.314	117	35.47	63
Sept. 8	2.817	155	44.22	213	23.197	96	34.84	90
18	2.662	102	42.09	226	23.101	67	33.94	118
28	2.560	39	39.83	231	23.034	33	32.76	146
Okt. 8	2.521	31	37.52	225	23.001	7	31.30	172
18	2.552	106	35.27	210	23.008	53	29.58	196
28	2.658	183	33.17	186	23.061	101	27.62	218
Nov. 7	2.841	257	31.31	153	23.162	149	25.44	235
17	3.098	325	29.78	113	23.311	195	23.09	247
27	3.423	385	28.65	67	23.506	238	20.62	253
Dez. 7	3.808	433	27.98	19	23.744	275	18.09	253
17	4.241	466	27.79	32	24.019	301	15.56	243
27	4.707	484	28.11	81	24.320	321	13.13	226
37	5.191		28.92		24.641		10.87	
Mittl. Ort	0.465		25.86		21.794		35.93	
sec δ, tg δ	1.668		−1.335		1.050		+0.320	
a, *a'*	+3.8		−18.3		+2.9		−18.0	
b, *b'*	+0.08		+ 0.41		−0.02		+ 0.44	

Tag	509) η Ursae maj. AR.		509) η Ursae maj. Dekl.		510) 89 Virginis AR.		510) 89 Virginis Dekl.	
1939	$13^h\ 45^m$		$+49°\ 36'$		$13^h\ 46^m$		$-17°\ 49'$	
Jan. 1	7.888	421	44.18	196	33.716	339	48.45	175
11	8.309	428	42.22	141	34.055	337	50.20	186
21	8.737	421	40.81	81	34.392	325	52.06	188
31	9.158	401	40.00	19	34.717	306	53.94	186
Febr. 10	9.559	368	39.81	42	35.023	279	55.80	178
20	9.927	325	40.23	100	35.302	248	57.58	165
März 2	10.252	275	41.23	153	35.550	215	59.23	150
12	10.527	221	42.76	197	35.765	181	60.73	132
22	10.748	163	44.73	233	35.946	146	62.05	112
Apr. 1	10.911	106	47.06	259	36.092	112	63.17	94
11	[19] 11.017	50	49.65	273	[19] 36.204	81	64.11	74
21	11.067	2	52.38	277	36.285	51	64.85	57
Mai 1	11.065	52	55.15	272	36.336	22	65.42	40
11	11.013	96	57.87	256	36.358	4	65.82	23
21	10.917	134	60.43	233	36.354	28	66.05	8
31	10.783	168	62.76	202	36.326	52	66.13	7
Juni 10	10.615	197	64.78	166	36.274	73	66.06	20
20	10.418	219	66.44	126	36.201	93	65.86	33
30	10.199	236	67.70	83	36.108	110	65.53	45
Juli 10	9.963	247	68.53	37	35.998	123	65.08	56
20	9.716	252	68.90	10	35.875	133	64.52	66
30	9.464	251	68.80	55	35.742	137	63.86	74
Aug. 9	9.213	242	68.25	101	35.605	136	63.12	81
19	8.971	226	67.24	145	35.469	129	62.31	83
29	8.745	202	65.79	187	35.340	114	61.48	83
Sept. 8	8.543	171	63.92	225	35.226	91	60.65	79
18	8.372	130	61.67	260	35.135	62	59.86	71
28	8.242	83	59.07	291	35.073	25	59.15	57
Okt. 8	8.159	29	56.16	316	35.048	19	58.58	39
18	8.130	32	53.00	335	35.067	67	58.19	16
28	8.162	96	49.65	346	35.134	116	58.03	9
Nov. 7	8.258	161	46.19	350	35.250	166	58.12	38
17	8.419	225	42.69	345	35.416	214	58.50	67
27	8.644	285	39.24	330	35.630	256	59.17	97
Dez. 7	8.929	337	35.94	305	35.886	291	60.14	124
17	9.266	379	32.89	271	36.177	317	61.38	147
27	9.645	409	30.18	227	36.494	331	62.85	167
37	10.054		27.91		36.825		64.52	
Mittl. Ort	8.396		61.40		33.178		51.67	
sec δ, tg δ	1.544		+1.176		1.051		−0.322	
a, *a'*	+2.4		−18.0		+3.3		−17.9	
b, *b'*	−0.07		+ 0.44		+0.02		+ 0.45	

Tag	512) ζ Centauri AR.	Δ	512) ζ Centauri Dekl.	Δ	513) η Bootis AR.	Δ	513) η Bootis Dekl.	Δ	517) 11 Bootis AR.	Δ	517) 11 Bootis Dekl.	Δ	516) τ Virginis AR.	Δ	516) τ Virginis Dekl.	Δ
1939	$13^h\ 51^m$		$-46°\ 59'$		$13^h\ 51^m$		$+18°\ 41'$		$13^h\ 58^m$		$+27°\ 40'$		$13^h\ 58^m$		$+1°\ 50'$	
	s		"		s		"		s		"		s		"	
Jan. 1	44.050	443	8.86	107	46.945	327	61.10	215	24.534	337	38.31	219	32.714	319	16.80	202
11	44.493	441	9.93	145	47.272	329	58.95	185	24.871	342	36.12	181	33.033	321	14.78	189
21	44.934	428	11.38	179	47.601	321	57.10	150	25.213	336	34.31	137	33.354	313	12.89	172
31	45.362	404	13.17	207	47.922	304	55.60	110	25.549	320	32.94	89	33.667	296	11.17	148
Febr. 10	45.766	371	15.24	228	48.226	279	54.50	66	25.869	297	32.05	39	33.963	274	9.69	120
20	46.137	333	17.52	242	48.505	248	53.84	23	26.166	265	31.66	10	34.237	245	8.49	90
März 2	46.470	290	19.94	252	48.753	215	53.61	19	26.431	229	31.76	58	34.482	214	7.59	59
12	46.760	246	22.46	255	48.968	178	53.80	57	26.660	192	32.34	100	34.696	181	7.00	28
22	47.006	201	25.01	253	49.146	141	54.37	91	26.852	152	33.34	137	34.877	148	6.72	1
Apr. 1	47.207	156	27.54	246	49.287	105	55.28	119	27.004	112	34.71	165	35.025	115	6.71	25
11	[20] 47.363	112	30.00	235	[20] 49.392	71	56.47	139	27.116	75	36.36	187	35.140	83	6.96	46
20*)	47.475	69	32.35	220	49.463	39	57.86	154	[22] 27.191	39	38.23	200	[22] 35.223	55	7.42	63
30	47.544	27	34.55	201	49.502	8	59.40	161	27.230	5	40.23	204	35.278	27	8.05	75
Mai 10	47.571	12	36.56	180	49.510	19	61.01	161	27.235	25	42.27	202	35.305	0	8.80	84
20	47.559	51	38.36	154	49.491	45	62.62	157	27.210	53	44.29	192	35.305	23	9.64	89
30	47.508	87	39.90	125	49.446	68	64.19	146	27.157	79	46.21	176	35.282	46	10.53	90
Juni 9	47.421	121	41.15	95	49.378	88	65.65	132	27.078	102	47.97	155	35.236	67	11.43	89
19	47.300	152	42.10	61	49.290	106	66.97	114	26.976	122	49.52	131	35.169	86	12.32	84
29	47.148	178	42.71	27	49.184	121	68.11	93	26.854	138	50.83	102	35.083	103	13.16	79
Juli 9	46.970	198	42.98	9	49.063	133	69.04	69	26.716	152	51.85	71	34.980	116	13.95	70
19	46.772	213	42.89	46	48.930	142	69.73	45	26.564	160	52.56	40	34.864	127	14.65	61
29	46.559	219	42.43	80	48.788	145	70.18	19	26.404	164	52.96	5	34.737	133	15.26	50
Aug. 8	46.340	217	41.63	113	48.643	144	70.37	9	26.240	163	53.01	28	34.604	133	15.76	37
18	46.123	204	40.50	142	48.499	136	70.28	37	26.077	156	52.73	63	34.471	127	16.13	22
28	45.919	182	39.08	168	48.363	123	69.91	65	25.921	142	52.10	96	34.344	116	16.35	6
Sept. 7	45.737	148	37.40	186	48.240	102	69.26	93	25.779	121	51.14	130	34.228	97	16.41	12
17	45.589	104	35.54	197	48.138	75	68.33	122	25.658	92	49.84	162	34.131	71	16.29	32
27	45.485	51	33.57	202	48.063	40	67.11	150	25.566	56	48.22	193	34.060	37	15.97	55
Okt. 7	45.434	10	31.55	197	48.023	1	65.61	176	25.510	15	46.29	220	34.023	2	15.42	78
17	45.444	76	29.58	183	48.022	45	63.85	201	25.495	32	44.09	244	34.025	46	14.64	102
27	45.520	145	27.75	161	48.067	93	61.84	223	25.527	82	41.65	265	34.071	93	13.62	126
Nov. 6	45.665	213	26.14	131	48.160	143	59.61	240	25.609	134	39.00	280	34.164	141	12.36	150
16	45.878	277	24.83	94	48.303	189	57.21	253	25.743	185	36.20	288	34.305	188	10.86	171
26	46.155	332	23.89	53	48.492	233	54.68	259	25.928	232	33.32	288	34.493	229	9.15	188
Dez. 6	46.487	379	23.36	9	48.725	271	52.09	257	26.160	272	30.44	281	34.722	265	7.27	200
16	46.866	412	23.27	36	48.996	299	49.52	248	26.432	305	27.63	265	34.987	294	5.27	206
26	47.278	433	23.63	81	49.295	319	47.04	230	26.737	327	24.98	239	35.281	311	3.21	206
36	47.711		24.44		49.614		44.74		27.064		22.59		35.592		1.15	
Mittl. Ort	43.292		20.84		46.818		69.84		24.589		49.40		32.425		19.77	
sec δ, tg δ	1.466		−1.072		1.056		+0.339		1.129		+0.525		1.001		+0.032	
a, a'	+3.7		−17.7		+2.9		−17.7		+2.7		−17.4		+3.1		−17.4	
b, b'	+0.06		+ 0.47		−0.02		+ 0.47		−0.03		+ 0.49		0.00		+ 0.49	

*) Bei Stern 517) und 516) lies April 21.

Scheinbare Sternörter 1939

Tag	518) β Centauri AR.	518) β Centauri Dekl.	521) α Draconis AR.	521) α Draconis Dekl.	520) ϑ Centauri AR.	520) ϑ Centauri Dekl.	522) d Bootis AR.	522) d Bootis Dekl.
1939	$13^h\ 59^m$	−60° 4′	$14^h\ 2^m$	+64° 39′	$14^h\ 3^m$	−36° 4′	$14^h\ 7^m$	+25° 22′
Jan. 1	30.83 57	32.92 62	42.59 57	42.44 194	5.602 383	6.00 124	36.996 331	37.23 223
11	31.40 57	33.54 110	43.16 59	40.50 132	5.985 385	7.24 153	37.327 336	35.00 188
21	31.97 56	34.64 155	43.75 59	39.18 67	6.370 375	8.77 176	37.663 332	33.12 147
31	32.53 54	36.19 194	44.34 57	38.51 1	6.745 356	10.53 194	37.995 319	31.65 100
Febr. 10	33.07 49	38.13 227	44.91 54	38.50 65	7.101 330	12.47 205	38.314 296	30.65 51
20	33.56 45	40.40 254	45.45 48	39.15 128	7.431 298	14.52 210	38.610 267	30.14 3
März 2	34.01 39	42.94 274	45.93 41	40.43 185	7.729 262	16.62 212	38.877 234	30.11 44
12	34.40 34	45.68 287	46.34 34	42.28 231	7.991 225	18.74 208	39.111 197	30.55 86
22	34.74 27	48.55 294	46.68 25	44.59 269	8.216 187	20.82 201	39.308 160	31.41 124
Apr. 1	35.01 22	51.49 295	46.93 17	47.28 295	8.403 150	22.83 190	39.468 122	32.65 153
11	35.23 15	54.44 290	47.10 7	50.23 310	8.553 113	24.73 177	39.590 85	34.18 176
21	22 35.38 9	57.34 279	23 47.17 1	53.33 313	23 8.666 77	26.50 162	24 39.675 50	35.94 191
30	35.47 4	60.13 263	47.16 9	56.46 304	8.743 43	28.12 145	39.725 18	37.85 197
Mai 10	35.51 3	62.76 242	47.07 16	59.50 286	8.786 9	29.57 126	39.743 13	39.82 196
20	35.48 8	65.18 216	46.91 24	62.36 258	8.795 23	30.83 105	39.730 42	41.78 189
30	35.40 13	67.34 185	46.67 29	64.94 224	8.772 55	31.88 82	39.688 68	43.67 176
Juni 9	35.27 19	69.19 150	46.38 34	67.18 182	8.717 83	32.70 58	39.620 92	45.43 156
19	35.08 23	70.69 111	46.04 37	69.00 136	8.634 110	33.28 33	39.528 112	46.99 134
29	34.85 26	71.80 70	45.67 41	70.36 87	8.524 134	33.61 7	39.416 131	48.33 107
Juli 9	34.59 30	72.50 25	45.26 43	71.23 35	8.390 154	33.68 20	39.285 145	49.40 79
19	34.29 32	72.75 19	44.83 44	71.58 17	8.236 169	33.48 46	39.140 156	50.19 48
29	33.97 33	72.56 64	44.39 44	71.41 68	8.067 177	33.02 71	38.984 161	50.67 16
Aug. 8	33.64 32	71.92 107	43.95 43	70.73 120	7.890 178	32.31 95	38.823 162	50.83 16
18	33.32 31	70.85 147	43.52 40	69.53 167	7.712 171	31.36 116	38.661 157	50.67 50
28	33.01 27	69.38 183	43.12 37	67.86 213	7.541 155	30.20 132	38.504 145	50.17 83
Sept. 7	32.74 23	67.55 212	42.75 32	65.73 255	7.386 130	28.88 143	38.359 124	49.34 116
17	32.51 17	65.43 234	42.43 26	63.18 291	7.256 95	27.45 149	38.235 98	48.18 147
27	32.34 10	63.09 247	42.17 20	60.27 323	7.161 52	25.96 149	38.137 64	46.71 178
Okt. 7	32.24 2	60.62 250	41.97 12	57.04 348	7.109 1	24.47 141	38.073 23	44.93 206
17	32.22 8	58.12 243	41.85 4	53.56 365	7.108 55	23.06 125	38.050 23	42.87 232
27	32.30 17	55.69 226	41.81 6	49.91 376	7.163 114	21.81 103	38.073 73	40.55 253
Nov. 6	32.47 25	53.43 199	41.87 15	46.15 376	7.277 173	20.78 75	38.146 124	38.02 270
16	32.72 34	51.44 163	42.02 25	42.39 367	7.450 229	20.03 42	38.270 175	35.32 280
26	33.06 42	49.81 121	42.27 33	38.72 348	7.679 280	19.61 6	38.445 222	32.52 283
Dez. 6	33.48 48	48.60 73	42.60 42	35.24 317	7.959 321	19.55 32	38.667 263	29.69 278
16	33.96 53	47.87 22	43.02 49	32.07 278	8.280 354	19.87 69	38.930 296	26.91 264
26	34.49 55	47.65 30	43.51 54	29.29 229	8.634 374	20.56 104	39.226 319	24.27 242
36	35.04	47.95	44.05	27.00	9.008	21.60	39.545	21.85
Mittl. Ort	30.00	47.87	44.20	61.00	5.016	15.26	37.069	47.18
sec δ, tg δ	2.005	−1.738	2.337	+2.112	1.237	−0.728	1.107	+0.474
a, a′	+4.2	−17.4	+1.6	−17.2	+3.6	−17.2	+2.7	−17.0
b, b′	+0.10	+ 0.50	−0.12	+ 0.51	+0.04	+ 0.51	−0.03	+ 0.53

Obere Kulmination Greenwich

Tag	524) 4 Ursae min. AR.	524) 4 Ursae min. Dekl.	523) κ Virginis AR.	523) κ Virginis Dekl.	525) ι Virginis AR.	525) ι Virginis Dekl.	526) α Bootis AR.	526) α Bootis Dekl.
1939	$14^h\ 8^m$	$+77°\ 49'$	$14^h\ 9^m$	$-9°\ 59'$	$14^h\ 12^m$	$-5°\ 42'$	$14^h\ 12^m$	$+19°\ 29'$
	s	"	s	"	s	"	s	"
Jan. 1	58.77 102	43.83 178	38.646 324	25.21 179	49.027 320	37.21 188	52.691 319	49.03 227
11	59.79 108	42.05 114	38.970 327	27.00 181	49.347 323	39.09 185	53.010 325	46.76 198
21	60.87 111	40.91 47	39.297 320	28.81 175	49.670 317	40.94 175	53.335 322	44.78 161
31	61.98 108	40.44 20	39.617 305	30.56 165	49.987 302	42.69 160	53.657 308	43.17 121
Febr. 10	63.06 103	40.64 87	39.922 283	32.21 149	50.289 282	44.29 140	53.965 287	41.96 77
20	64.09 93	41.51 149	40.205 257	33.70 130	50.571 256	45.69 116	54.252 261	41.19 32
März 2	65.02 80	43.00 205	40.462 227	35.00 109	50.827 227	46.85 92	54.513 229	40.87 12
12	65.82 65	45.05 250	40.689 195	36.09 86	51.054 195	47.77 66	54.742 195	40.99 53
22	66.47 48	47.55 286	40.884 163	36.95 63	51.249 163	48.43 41	54.937 160	41.52 88
Apr. 1	66.95 30	50.41 310	41.047 131	37.58 42	51.412 132	48.84 18	55.097 124	42.40 119
11	67.25 11	53.51 322	41.178 100	38.00 23	51.544 101	49.02 2	55.221 90	43.59 141
21	67.36 7	56.73 322	41.278 72	38.23 5	51.645 72	49.00 20	55.311 57	45.00 157
30	[25] 67.29 25	59.95 310	[25] 41.350 43	38.28 10	[26] 51.717 44	48.80 34	[26] 55.368 26	46.57 167
Mai 10	67.04 40	63.05 288	41.393 16	38.18 22	51.761 18	48.46 45	55.394 3	48.24 168
20	66.64 56	65.93 258	41.409 10	37.96 33	51.779 9	48.01 53	55.391 31	49.92 165
30	66.08 68	68.51 220	41.399 34	37.63 41	51.770 33	47.48 60	55.360 56	51.57 154
Juni 9	65.40 79	70.71 175	41.365 57	37.22 48	51.737 55	46.88 63	55.304 80	53.11 141
19	64.61 88	72.46 126	41.308 79	36.74 54	51.682 78	46.25 65	55.224 101	54.52 122
29	63.73 93	73.72 74	41.229 98	36.20 58	51.604 97	45.60 65	55.123 120	55.74 101
Juli 9	62.80 97	74.46 20	41.131 114	35.62 60	51.507 113	44.95 64	55.003 135	56.75 77
19	61.83 99	74.66 34	41.017 128	35.02 61	51.394 126	44.31 61	54.868 147	57.52 50
29	60.84 99	74.32 87	40.889 136	34.41 62	51.268 135	43.70 56	54.721 154	58.02 24
Aug. 8	59.85 95	73.45 138	40.753 138	33.79 61	51.133 137	43.14 51	54.567 156	58.26 5
18	58.90 90	72.07 188	40.615 134	33.18 56	50.996 135	42.63 44	54.411 151	58.21 34
28	58.00 83	70.19 232	40.481 124	32.62 51	50.861 125	42.19 33	54.260 141	57.87 64
Sept. 7	57.17 73	67.87 273	40.357 106	32.11 41	50.736 107	41.86 21	54.119 123	57.23 93
17	56.44 62	65.14 308	40.251 79	31.70 29	50.629 81	41.65 6	53.996 97	56.30 123
27	55.82 49	62.06 338	40.172 45	31.41 13	50.548 49	41.59 12	53.899 65	55.07 152
Okt. 7	55.33 34	58.68 360	40.127 6	31.28 6	50.499 10	41.71 32	53.834 25	53.55 180
17	54.99 17	55.08 375	40.121 40	31.34 28	50.489 35	42.03 55	53.809 19	51.75 205
27	54.82 0	51.33 381	40.161 88	31.62 52	50.524 83	42.58 80	53.828 68	49.70 229
Nov. 6	54.82 18	47.52 378	40.249 138	32.14 77	50.607 132	43.38 104	53.896 118	47.41 247
16	55.00 37	43.74 366	40.387 186	32.91 103	50.739 179	44.42 127	54.014 167	44.94 261
26	55.37 54	40.08 342	40.573 229	33.94 126	50.918 223	45.69 149	54.181 213	42.33 267
Dez. 6	55.91 71	36.66 310	40.802 267	35.20 148	51.141 260	47.18 167	54.394 253	39.66 267
16	56.62 85	33.56 266	41.069 295	36.68 164	51.401 290	48.85 180	54.647 285	36.99 260
26	57.47 97	30.90 214	41.364 315	38.32 175	51.691 310	50.65 187	54.932 309	34.39 241
36	58.44	28.76	41.679	40.07	52.001	52.52	55.241	31.98
Mittl. Ort	63.21	63.04	38.305	26.55	48.742	37.26	52.701	56.99
sec δ, tg δ	4.745	+4.639	1.015	−0.176	1.005	−0.100	1.061	+0.354
a, *a′*	−0.2	−16.9	+3.2	−16.9	+3.1	−16.8	+2.8	−16.8
b, *b′*	−0.26	+ 0.53	+0.01	+ 0.54	+0.01	+ 0.55	−0.02	+ 0.55

Tag	527) λ Bootis AR.		527) λ Bootis Dekl.		531) ϑ Bootis AR.		531) ϑ Bootis Dekl.	
1939	$14^h\ 14^m$		$+46°\ 21'$		$14^h\ 23^m$		$+52°\ 7'$	
Jan. 1	3.337	387	48.65	225	6.293	414	39.82	232
11	3.724	402	46.40	174	6.707	433	37.50	177
21	4.126	401	44.66	116	7.140	438	35.73	117
31	4.527	390	43.50	56	7.578	429	34.56	54
Febr. 10	4.917	366	42.94	5	8.007	406	34.02	10
20	5.283	332	42.99	66	8.413	371	34.12	73
März 2	5.615	290	43.65	121	8.784	328	34.85	131
12	5.905	244	44.86	170	9.112	278	36.16	182
22	6.149	194	46.56	211	9.390	222	37.98	224
Apr. 1	6.343	142	48.67	243	9.612	164	40.22	258
11	6.485	92	51.10	264	9.776	106	42.80	280
21	[26] 6.577	41	53.74	275	[28] 9.882	49	45.60	291
30	6.618	6	56.49	276	9.931	6	48.51	291
Mai 10	6.612	49	59.25	267	9.925	58	51.42	283
20	6.563	90	61.92	250	9.867	105	54.25	264
30	6.473	127	64.42	225	9.762	149	56.89	237
Juni 9	6.346	159	66.67	193	9.613	186	59.26	204
19	6.187	186	68.60	157	9.427	219	61.30	165
29	6.001	209	70.17	117	9.208	247	62.95	123
Juli 9	5.792	226	71.34	73	8.961	267	64.18	77
19	5.566	238	72.07	29	8.694	281	64.95	30
29	5.328	244	72.36	16	8.413	289	65.25	19
Aug. 8	5.084	242	72.20	62	8.124	288	65.06	67
18	4.842	233	71.58	107	7.836	279	64.39	114
28	4.609	217	70.51	151	7.557	262	63.25	160
Sept. 7	4.392	191	69.00	191	7.295	234	61.65	203
17	4.201	158	67.09	229	7.061	198	59.62	242
27	4.043	115	64.80	263	6.863	152	57.20	279
Okt. 7	3.928	66	62.17	293	6.711	98	54.41	308
17	3.862	10	59.24	317	6.613	37	51.33	333
27	3.852	51	56.07	335	6.576	30	48.00	351
Nov. 6	3.903	115	52.72	345	6.606	101	44.49	360
16	4.018	178	49.27	346	6.707	170	40.89	361
26	4.196	238	45.81	337	6.877	238	37.28	351
Dez. 6	4.434	292	42.44	320	7.115	300	33.77	331
16	4.726	337	39.24	291	7.415	353	30.46	301
26	5.063	372	36.33	254	7.768	395	27.45	261
36	5.435		33.79		8.163		24.84	
Mittl. Ort	3.974		63.45		7.248		55.11	
sec δ, tg δ	1.449		+1.049		1.629		+1.286	
a, *a'*	+2.3		−16.7		+2.1		−16.3	
b, *b'*	−0.06		+ 0.55		−0.07		+ 0.58	

Tag	534) ρ Bootis AR.		534) ρ Bootis Dekl.		535) γ Bootis AR.		535) γ Bootis Dekl.	
1939	$14^h\ 29^m$		$+30°\ 37'$		$14^h\ 29^m$		$+38°\ 34'$	
Jan. 1	11.784	329	67.64	236	36.851	348	15.03	239
11	12.113	342	65.28	198	37.199	363	12.64	194
21	12.455	342	63.30	152	37.562	366	10.70	143
31	12.797	334	61.78	102	37.928	357	9.27	87
Febr. 10	13.131	315	60.76	49	38.285	338	8.40	29
20	13.446	289	60.27	4	38.623	311	8.11	29
März 2	13.735	258	60.31	55	38.934	277	8.40	83
12	13.993	222	60.86	103	39.211	238	9.23	133
22	14.215	184	61.89	143	39.449	196	10.56	176
Apr. 1	14.399	147	63.32	176	39.645	153	12.32	210
11	14.546	108	65.08	202	39.798	109	14.42	236
21	[30] 14.654	70	67.10	219	[30] 39.907	67	16.78	251
30	14.724	35	69.29	226	39.974	26	19.29	256
Mai 10	14.759	0	71.55	226	40.000	13	21.85	254
20	14.759	33	73.81	218	39.987	49	24.39	242
30	14.726	62	75.99	204	39.938	83	26.81	223
Juni 9	14.664	91	78.03	183	39.855	114	29.04	198
19	14.573	115	79.86	157	39.741	141	31.02	167
29	14.458	138	81.43	127	39.600	165	32.69	132
Juli 9	14.320	156	82.70	96	39.435	184	34.01	95
19	14.164	171	83.66	60	39.251	199	34.96	54
29	13.993	180	84.26	24	39.052	209	35.50	13
Aug. 8	13.813	184	84.50	13	38.843	211	35.63	29
18	13.629	181	84.37	50	38.632	207	35.34	71
28	13.448	172	83.87	87	38.425	196	34.63	112
Sept. 7	13.276	153	83.00	124	38.229	177	33.51	153
17	13.123	128	81.76	159	38.052	148	31.98	189
27	12.995	95	80.17	193	37.904	112	30.09	225
Okt. 7	12.900	54	78.24	223	37.792	69	27.84	257
17	12.846	7	76.01	250	37.723	19	25.27	284
27	12.839	44	73.51	273	37.704	37	22.43	305
Nov. 6	12.883	98	70.78	290	37.741	94	19.38	320
16	12.981	152	67.88	300	37.835	152	16.18	327
26	13.133	202	64.88	303	37.987	208	12.91	326
Dez. 6	13.335	250	61.85	297	38.195	258	9.65	314
16	13.585	285	58.88	281	38.453	300	6.51	294
26	13.870	316	56.07	256	38.753	333	3.57	263
36	14.186		53.51		39.086		0.94	
Mittl. Ort	12.089		77.81		37.353		27.12	
sec δ, tg δ	1.162		+0.592		1.279		+0.798	
a, *a'*	+2.6		−15.9		+2.4		−15.9	
b, *b'*	−0.03		+ 0.61		−0.04		+ 0.61	

Tag	537) η Centauri AR.		537) Dekl.		538) α Centauri [1]) AR.		538) Dekl.		543) ζ Bootis med. AR.		543) Dekl.		545) μ Virginis AR.		545) Dekl.	
1939	14h 31m		−41° 53′		14h 35m		−60° 34′		14h 38m		+13° 59′		14h 39m		−5° 23′	
Jan. 1	37.850	404	16.59	77	27.04	56	52.73	20	14.025	307	14.91	221	50.687	310	38.12	181
11	38.254	412	17.36	110	27.60	57	52.93	68	14.332	318	12.70	198	50.997	319	39.93	178
21	38.666	408	18.46	139	28.17	57	53.61	113	14.650	318	10.72	169	51.316	318	41.71	168
31	39.074	395	19.85	164	28.74	55	54.74	153	14.968	309	9.03	133	51.634	309	43.39	153
Febr. 10	39.469	373	21.49	183	29.29	52	56.27	189	15.277	293	7.70	94	51.943	292	44.92	133
20	39.842	344	23.32	196	29.81	48	58.16	219	15.570	271	6.76	52	52.235	271	46.25	110
März 2	40.186	312	25.28	204	30.29	44	60.35	241	15.841	244	6.24	12	52.506	245	47.35	85
12	40.498	275	27.32	208	30.73	37	62.76	258	16.085	214	6.12	28	52.751	216	48.20	59
22	40.773	238	29.40	208	31.10	32	65.34	271	16.299	183	6.40	64	52.967	187	48.79	34
Apr. 1	41.011	199	31.48	204	31.42	27	68.05	275	16.482	151	7.04	95	53.154	158	49.13	10
11	41.210	160	33.52	196	31.69	20	70.80	276	16.633	118	7.99	119	53.312	128	49.23	10
21	41.370	122	35.48	186	31.89	14	73.56	270	16.751	88	9.18	139	53.440	99	49.13	27
30*)	[30] 41.492	82	37.34	173	[1] 32.03	7	76.26	260	[2] 16.839	57	10.57	150	[2] 53.539	70	48.86	41
Mai 10	41.574	44	39.07	157	32.10	2	78.86	244	16.896	27	12.07	156	53.609	42	48.45	53
20	41.618	6	40.64	139	32.12	5	81.30	223	16.923	1	13.63	157	53.651	14	47.92	60
30	41.624	31	42.03	118	32.07	10	83.53	198	16.922	28	15.20	152	53.665	12	47.32	65
Juni 9	41.593	68	43.21	94	31.97	16	85.51	167	16.894	54	16.72	141	53.653	38	46.67	67
19	41.525	103	44.15	69	31.81	22	87.18	132	16.840	79	18.13	128	53.615	63	46.00	68
29	41.422	134	44.84	42	31.59	26	88.50	95	16.761	100	19.41	112	53.552	86	45.32	68
Juli 9	41.288	161	45.26	12	31.33	30	89.45	54	16.661	120	20.53	92	53.466	107	44.64	64
19	41.127	183	45.38	18	31.03	33	89.99	11	16.541	137	21.45	71	53.359	124	44.00	61
29	40.944	198	45.20	47	30.70	35	90.10	33	16.404	147	22.16	48	53.235	137	43.39	56
Aug. 8	40.746	206	44.73	76	30.35	35	89.77	76	16.257	154	22.64	23	53.098	144	42.83	49
18	40.540	204	43.97	103	30.00	35	89.01	118	16.103	155	22.87	2	52.954	146	42.34	41
28	40.336	191	42.94	127	29.65	33	87.83	156	15.948	147	22.85	29	52.808	139	41.93	31
Sept. 7	40.145	168	41.67	146	29.32	28	86.27	189	15.801	134	22.56	56	52.669	125	41.62	19
17	39.977	135	40.21	159	29.04	23	84.38	216	15.667	111	22.00	83	52.544	103	41.43	5
27	39.842	90	38.62	167	28.81	16	82.22	235	15.556	81	21.17	110	52.441	72	41.38	12
Okt. 7	39.752	38	36.95	167	28.65	8	79.87	245	15.475	44	20.07	138	52.369	36	41.50	31
17	39.714	22	35.28	159	28.57	1	77.42	245	15.431	1	18.69	165	52.333	8	41.81	53
27	39.736	85	33.69	143	28.58	10	74.97	235	15.430	47	17.04	188	52.341	56	42.34	76
Nov. 6	39.821	151	32.26	121	28.68	19	72.62	215	15.477	96	15.16	210	52.397	105	43.10	99
16	39.972	213	31.05	92	28.87	29	70.47	186	15.573	145	13.06	227	52.502	155	44.09	122
26	40.185	272	30.13	58	29.16	37	68.61	149	15.718	192	10.79	239	52.657	201	45.31	142
Dez. 6	40.457	321	29.55	21	29.53	44	67.12	106	15.910	234	8.40	245	52.858	241	46.73	160
– 16	40.778	361	29.34	17	29.97	50	66.06	59	16.144	268	5.95	242	53.099	274	48.33	173
26	41.139	389	29.51	54	30.47	54	65.47	11	16.412	295	3.53	232	53.373	298	50.06	179
36	41.528		30.05		31.01		65.36		16.707		1.21		53.671		51.85	
Mittl. Ort	37.424		27.81		26.51		68.09		14.094		19.98		50.547		38.99	
sec δ, tg δ	1.343		−0.897		2.036		−1.774		1.031		+0.249		1.004		−0.094	
a, *a′*	+3.8		−15.8		+4.6		−15.6		+2.9		−15.5		+3.2		−15.4	
b, *b′*	+0.05		+ 0.61		+0.09		+ 0.63		−0.01		+ 0.64		0.00		+ 0.64	

[1]) Ort des hellen Sterns; die jährliche Parallaxe (0.″758) ist bereits berücksichtigt.

*) Bei Stern 538), 543) und 545) lies Mai 1.

Scheinbare Sternörter 1939

Tag	542) α Apodis AR.		542) α Apodis Dekl.		547) 109 Virginis AR.		547) 109 Virginis Dekl.		548) α Librae AR.		548) α Librae Dekl.		549) Grb 2164 AR.		549) Grb 2164 Dekl.	
1939	$14^h\ 40^m$		$-78°\ 46'$		$14^h\ 43^m$		$+2°\ 8'$		$14^h\ 47^m$		$-15°\ 47'$		$14^h\ 49^m$		$+59°\ 32'$	
	s		"		s		"		s		"		s		"	
Jan. 1	11.03	129	60.48	52	9.829	305	54.05	197	30.143	319	17.94	147	51.664	449	13.78	249
11	12.32	133	59.96	6	10.134	314	52.08	187	30.462	328	19.41	155	52.113	485	11.29	195
21	13.65	135	60.02	62	10.448	314	50.21	169	30.790	329	20.96	157	52.598	502	9.34	133
31	15.00	133	60.64	114	10.762	306	48.52	146	31.119	321	22.53	154	53.100	503	8.01	68
Febr. 10	16.33	127	61.78	162	11.068	291	47.06	119	31.440	304	24.07	146	53.603	488	7.33	2
20	17.60	120	63.40	206	11.359	269	45.87	88	31.744	284	25.53	133	54.091	457	7.31	65
März 2	18.80	109	65.46	244	11.628	244	44.99	56	32.028	258	26.86	117	54.548	414	7.96	127
12	19.89	98	67.90	275	11.872	216	44.43	24	32.286	231	28.03	100	54.962	360	9.23	183
22	20.87	83	70.65	300	12.088	186	44.19	5	32.517	201	29.03	82	55.322	298	11.06	230
Apr. 1	21.70	69	73.65	317	12.274	157	44.24	32	32.718	172	29.85	65	55.620	231	13.36	268
11	22.39	54	76.82	328	12.431	127	44.56	55	32.890	143	30.50	47	55.851	160	16.04	294
21	22.93	37	80.10	331	12.558	97	45.11	73	33.033	113	30.97	32	56.011	90	18.98	310
Mai 1	[3] 23.30	20	83.41	328	[3] 12.655	69	45.84	87	[4] 33.146	83	31.29	19	[5] 56.101	20	22.08	314
10	23.50	3	86.69	318	12.724	40	46.71	96	33.229	55	31.48	6	56.121	47	25.22	308
20	23.53	14	89.87	300	12.764	13	47.67	101	33.284	25	31.54	5	56.074	110	28.30	292
30	23.39	30	92.87	275	12.777	14	48.68	102	33.309	3	31.49	14	55.964	169	31.22	266
Juni 9	23.09	45	95.62	244	12.763	40	49.70	100	33.306	32	31.35	22	55.795	221	33.88	234
19	22.64	60	98.06	207	12.723	65	50.70	95	33.274	59	31.13	30	55.574	268	36.22	195
29	22.04	72	100.13	164	12.658	88	51.65	88	33.215	84	30.83	37	55.306	308	38.17	152
Juli 9	21.32	83	101.77	117	12.570	108	52.53	78	33.131	108	30.46	43	54.998	339	39.69	104
19	20.49	91	102.94	65	12.462	126	53.31	68	33.023	127	30.03	49	54.659	363	40.73	55
29	19.58	95	103.59	12	12.336	139	53.99	55	32.896	142	29.54	54	54.296	377	41.28	4
Aug. 8	18.63	98	103.71	43	12.197	146	54.54	41	32.754	151	29.00	58	53.919	383	41.32	48
18	17.65	95	103.28	97	12.051	148	54.95	27	32.603	153	28.42	59	53.536	377	40.84	98
28	16.70	89	102.31	148	11.903	142	55.22	9	32.450	148	27.83	60	53.159	361	39.86	146
Sept. 7	15.81	79	100.83	195	11.761	129	55.31	8	32.302	134	27.23	56	52.798	333	38.40	193
17	15.02	66	98.88	235	11.632	107	55.23	29	32.168	112	26.67	51	52.465	296	36.47	237
27	14.36	49	96.53	267	11.525	78	54.94	50	32.056	80	26.16	41	52.169	245	34.10	275
Okt. 7	13.87	30	93.86	290	11.447	41	54.44	72	31.976	42	25.75	28	51.924	185	31.35	309
17	13.57	9	90.96	301	11.406	1	53.72	96	31.934	3	25.47	11	51.739	115	28.26	337
27	13.48	14	87.95	300	11.407	48	52.76	120	31.937	53	25.36	10	51.624	37	24.89	358
Nov. 6	13.62	36	84.95	289	11.455	97	51.56	143	31.990	105	25.46	32	51.587	45	21.31	369
16	13.98	59	82.06	265	11.552	146	50.13	163	32.095	156	25.78	56	51.632	130	17.62	373
26	14.57	79	79.41	231	11.698	192	48.50	181	32.251	203	26.34	81	51.762	213	13.89	366
Dez. 6	15.36	97	77.10	189	11.890	233	46.69	194	32.454	246	27.15	104	51.975	291	10.23	347
16	16.33	111	75.21	140	12.123	266	44.75	201	32.700	280	28.19	124	52.266	362	6.76	319
26	17.44	123	73.81	85	12.389	292	42.74	201	32.980	306	29.43	140	52.628	421	3.57	279
36	18.67		72.96		12.681		40.73		33.286		30.83		53.049		0.78	
Mittl. Ort	10.91		78.03		9.781		55.37		29.958		22.17		53.334		28.22	
sec δ, tg δ	5.143		−5.045		1.001		+0.038		1.039		−0.283		1.973		+1.701	
a, *a'*	+7.4		−15.3		+3.0		−15.2		+3.3		−14.9		+1.5		−14.8	
b, *b'*	+0.26		+ 0.64		0.00		+ 0.65		+0.01		+ 0.67		−0.08		+ 0.68	

Tag	550) β Ursae min. AR.		550) Dekl.		551) Pi XIV, 221 AR.		551) Dekl.	
1939	$14^h\ 50^m$		$+74°\ 23'$		$14^h\ 53^m$		$+14°\ 41'$	
	s		"		s		"	
Jan. 1	47.64	74	61.44	232	20.260	300	25.10	224
11	48.38	82	59.12	174	20.560	313	22.86	202
21	49.20	86	57.38	110	20.873	317	20.84	172
31	50.06	88	56.28	43	21.190	311	19.12	136
Febr. 10	50.94	85	55.85	26	21.501	298	17.76	96
20	51.79	81	56.11	92	21.799	278	16.80	55
März 2	52.60	73	57.03	154	22.077	253	16.25	12
12	53.33	63	58.57	209	22.330	226	16.13	28
22	53.96	52	60.66	254	22.556	195	16.41	66
Apr. 1	54.48	38	63.20	289	22.751	164	17.07	98
11	54.86	24	66.09	313	22.915	133	18.05	124
21	55.10	11	69.22	324	23.048	102	19.29	144
Mai 1	55.21	4	72.46	325	23.150	71	20.73	158
10	5 55.17	17	75.71	314	6 23.221	41	22.31	165
20	55.00	30	78.85	293	23.262	12	23.96	165
30	54.70	41	81.78	264	23.274	17	25.61	160
Juni 9	54.29	52	84.42	227	23.257	45	27.21	151
19	53.77	61	86.69	184	23.212	72	28.72	137
29	53.16	67	88.53	136	23.140	95	30.09	120
Juli 9	52.49	73	89.89	86	23.045	118	31.29	100
19	51.76	77	90.75	34	22.927	135	32.29	78
29	50.99	78	91.09	20	22.792	150	33.07	54
Aug. 8	50.21	79	90.89	73	22.642	159	33.61	29
18	49.42	77	90.16	125	22.483	161	33.90	2
28	48.65	74	88.91	173	22.322	156	33.92	24
Sept. 7	47.91	68	87.18	220	22.166	144	33.68	53
17	47.23	61	84.98	262	22.022	124	33.15	80
27	46.62	52	82.36	299	21.898	95	32.35	109
Okt. 7	46.10	40	79.37	330	21.803	59	31.26	137
17	45.70	29	76.07	355	21.744	17	29.89	164
27	45.41	15	72.52	371	21.727	29	28.25	189
Nov. 6	45.26	0	68.81	379	21.756	80	26.36	211
16	45.26	15	65.02	378	21.836	130	24.25	228
26	45.41	30	61.24	365	21.966	178	21.97	241
Dez. 6	45.71	45	57.59	342	22.144	221	19.56	247
16	46.16	57	54.17	309	22.365	257	17.09	245
26	46.73	69	51.08	265	22.622	287	14.64	235
36	47.42		48.43		22.909		12.29	
Mittl. Ort	51.72		77.19		20.416		29.63	
sec δ, tg δ	3.719		+3.583		1.034		+0.262	
a, a'	−0.2		−14.7		+2.8		−14.6	
b, b'	−0.18		+ 0.68		−0.01		+ 0.69	

Tag	552) β Lupi AR.		552) Dekl.		555) β Bootis AR.		555) Dekl.	
1939	$14^h\ 54^m$		$-42°\ 53'$		$14^h\ 59^m$		$+40°\ 37'$	
	s		"		s		"	
Jan. 1	31.775	400	11.71	49	38.138	336	37.91	260
11	32.175	414	12.20	82	38.474	357	35.31	216
21	32.589	415	13.02	112	38.831	367	33.15	166
31	33.004	407	14.14	138	39.198	367	31.49	110
Febr. 10	33.411	390	15.52	159	39.565	354	30.39	50
20	33.801	366	17.11	174	39.919	334	29.89	10
März 2	34.167	336	18.85	185	40.253	304	29.99	68
12	34.503	304	20.70	193	40.557	271	30.67	122
22	34.807	268	22.63	195	40.828	231	31.89	170
Apr. 1	35.075	231	24.58	194	41.059	189	33.59	208
11	35.306	193	26.52	190	41.248	147	35.67	239
21	35.499	154	28.42	183	41.395	103	38.06	260
Mai 1	35.653	115	30.25	174	41.498	60	40.66	270
10	6 35.768	74	31.99	162	7 41.558	18	43.36	271
20	35.842	34	33.61	146	41.576	23	46.07	263
30	35.876	6	35.07	129	41.553	61	48.70	248
Juni 9	35.870	46	36.36	108	41.492	98	51.18	224
19	35.824	85	37.44	85	41.394	130	53.42	195
29	35.739	121	38.29	60	41.264	160	55.37	161
Juli 9	35.618	154	38.89	31	41.104	186	56.98	123
19	35.464	180	39.20	3	40.918	207	58.21	83
29	35.284	201	39.23	26	40.711	222	59.04	40
Aug. 8	35.083	213	38.97	56	40.489	231	59.44	4
18	34.870	216	38.41	85	40.258	232	59.40	47
28	34.654	209	37.56	110	40.026	226	58.93	92
Sept. 7	34.445	190	36.46	132	39.800	210	58.01	134
17	34.255	159	35.14	150	39.590	186	56.67	175
27	34.096	118	33.64	161	39.404	152	54.92	213
Okt. 7	33.978	67	32.03	165	39.252	111	52.79	249
17	33.911	8	30.38	162	39.141	62	50.30	279
27	33.903	56	28.76	152	39.079	6	47.51	304
Nov. 6	33.959	123	27.24	133	39.073	53	44.47	323
16	34.082	189	25.91	109	39.126	113	41.24	334
26	34.271	250	24.82	78	39.239	173	37.90	337
Dez. 6	34.521	304	24.04	45	39.412	228	34.53	329
16	34.825	348	23.59	9	39.640	275	31.24	311
26	35.173	382	23.50	28	39.915	316	28.13	283
36	35.555		23.78		40.231		25.30	
Mittl. Ort	31.507		23.31		38.893		48.42	
sec δ, tg δ	1.365		−0.929		1.318		+0.858	
a, a'	+3.9		−14.5		+2.3		−14.2	
b, b'	+0.04		+ 0.69		−0.04		+ 0.71	

Scheinbare Sternörter 1939

Tag	556) γ Scorpii AR.		556) γ Scorpii Dekl.		557) ψ Bootis AR.		557) ψ Bootis Dekl.		558) ζ Lupi AR.		558) ζ Lupi Dekl.		563) δ Bootis AR.		563) δ Bootis Dekl.	
1939	$15^h\ 0^m$		−25° 2′		$15^h\ 1^m$		+27° 10′		$15^h\ 7^m$		−51° 51′		$15^h\ 13^m$		+33° 32′	
	s		″		s		″		s		″		s		″	
Jan. 1	29.815	332	29.99	108	49.476	306	56.49	248	53.468	453	53.34	1	1.996	308	20.71	261
11	30.147	345	31.07	125	49.782	323	54.01	214	53.921	472	53.35	40	2.304	331	18.10	224
21	30.492	346	32.32	137	50.105	330	51.87	174	54.393	480	53.75	78	2.635	342	15.86	180
31	30.838	340	33.69	144	50.435	327	50.13	128	54.873	474	54.53	112	2.977	342	14.06	129
Febr. 10	31.178	326	35.13	146	50.762	316	48.85	77	55.347	459	55.65	141	3.319	333	12.77	74
20	31.504	306	36.59	144	51.078	297	48.08	25	55.806	435	57.06	167	3.652	316	12.03	17
März 2	31.810	282	38.03	138	51.375	272	47.83	26	56.241	405	58.73	187	3.968	292	11.86	39
12	32.092	255	39.41	129	51.647	243	48.09	74	56.646	369	60.60	202	4.260	263	12.25	90
22	32.347	226	40.70	118	51.890	211	48.83	118	57.015	329	62.62	214	4.523	229	13.15	138
Apr. 1	32.573	197	41.88	107	52.101	177	50.01	156	57.344	288	64.76	220	4.752	194	14.53	178
11	32.770	166	42.95	95	52.278	141	51.57	184	57.632	243	66.96	223	4.946	157	16.31	210
21	32.936	135	43.90	82	52.419	106	53.41	206	57.875	197	69.19	222	5.103	119	18.41	233
Mai 1	33.071	104	44.72	71	52.525	72	55.47	219	58.072	149	71.41	216	5.222	80	20.74	246
10*)	[8] 33.175	72	45.43	59	[8] 52.597	38	57.66	224	[10] 58.221	100	73.57	207	[11] 5.302	43	23.20	252
20	33.247	40	46.02	47	52.635	4	59.90	221	58.321	51	75.64	193	5.345	5	25.72	248
30	33.287	9	46.49	35	52.639	29	62.11	211	58.372	0	77.57	177	5.350	30	28.20	237
Juni 9	33.296	23	46.84	23	52.610	60	64.22	195	58.372	51	79.34	155	5.320	64	30.57	218
19	33.273	54	47.07	10	52.550	88	66.17	173	58.321	99	80.89	129	5.256	97	32.75	195
29	33.219	84	47.17	3	52.462	115	67.90	148	58.222	144	82.18	102	5.159	127	34.70	166
Juli 9	33.135	111	47.14	16	52.347	139	69.38	119	58.078	185	83.20	69	5.032	153	36.36	132
19	33.024	133	46.98	29	52.208	159	70.57	87	57.893	221	83.89	35	4.879	175	37.68	96
29	32.891	152	46.69	43	52.049	175	71.44	53	57.672	247	84.24	1	4.704	193	38.64	59
Aug. 8	32.739	164	46.26	55	51.874	184	71.97	18	57.425	264	84.23	38	4.511	205	39.23	19
18	32.575	168	45.71	66	51.690	187	72.15	19	57.161	270	83.85	74	4.306	209	39.42	22
28	32.407	165	45.05	76	51.503	183	71.96	54	56.891	264	83.11	108	4.097	206	39.20	62
Sept. 7	32.242	151	44.29	82	51.320	170	71.42	91	56.627	243	82.03	140	3.891	194	38.58	102
17	32.091	129	43.47	84	51.150	150	70.51	126	56.384	210	80.63	165	3.697	174	37.56	142
27	31.962	97	42.63	83	51.000	121	69.25	161	56.174	162	78.98	185	3.523	145	36.14	178
Okt. 7	31.865	56	41.80	77	50.879	84	67.64	193	56.012	105	77.13	198	3.378	107	34.36	214
17	31.809	9	41.03	65	50.795	39	65.71	223	55.907	36	75.15	202	3.271	63	32.22	246
27	31.800	43	40.38	49	50.756	9	63.48	248	55.871	38	73.13	198	3.208	11	29.76	272
Nov. 6	31.843	98	39.89	28	50.765	62	61.00	270	55.909	117	71.15	185	3.197	43	27.04	295
16	31.941	153	39.61	5	50.827	115	58.30	286	56.026	194	69.30	164	3.240	100	24.09	309
26	32.094	204	39.56	21	50.942	167	55.44	293	56.220	266	67.66	136	3.340	155	21.00	316
Dez. 6	32.298	250	39.77	47	51.109	214	52.51	293	56.486	332	66.30	101	3.495	207	17.84	314
16	32.548	288	40.24	73	51.323	256	49.58	283	56.818	386	65.29	64	3.702	252	14.70	302
26	32.836	317	40.97	96	51.579	289	46.75	265	57.204	429	64.65	24	3.954	290	11.68	281
36	33.153		41.93		51.868		44.10		57.633		64.41		4.244		8.87	
Mittl. Ort	29.644		37.11		49.891		63.83		53.308		66.85		2.616		28.79	
sec δ, tg δ	1.104		−0.467		1.124		+0.514		1.620		−1.274		1.200		+0.663	
a, *a*′	+3.5		−14.1		+2.6		−14.1		+4.3		−13.7		+2.4		−13.3	
b, *b*′	+0.02		+ 0.71		−0.02		+ 0.71		+0.06		+ 0.73		−0.03		+ 0.75	

*) Bei Stern 563) lies Mai 11.

Tag		560) γ Triang. austr.				564) β Librae				565) ι H. Ursae min.				566) φ¹ Lupi			
		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939		$15^h\ 13^m$		−68° 27′		$15^h\ 13^m$		−9° 9′		$15^h\ 13^m$		+67° 34′		$15^h\ 17^m$		−36° 2′	
		s		″		s		″		s		″		s		″	
Jan.	1	11.01	70	6.42	66	43.283	299	29.98	156	52.99	53	27.67	266	55.754	357	19.77	51
	11	11.71	74	5.76	17	43.582	313	31.54	158	53.52	58	25.01	212	56.111	374	20.28	78
	21	12.45	75	5.59	33	43.895	317	33.12	153	54.10	62	22.89	151	56.485	380	21.06	101
	31	13.20	76	5.92	79	44.212	315	34.65	143	54.72	64	21.38	86	56.865	377	22.07	120
Febr.	10	13.96	73	6.71	123	44.527	303	36.08	127	55.36	63	20.52	17	57.242	366	23.27	134
	20	14.69	71	7.94	162	44.830	287	37.35	109	55.99	61	20.35	50	57.608	347	24.61	143
März	2	15.40	66	9.56	196	45.117	266	38.44	87	56.60	56	20.85	115	57.955	324	26.04	150
	12	16.06	60	11.52	225	45.383	243	39.31	65	57.16	50	22.00	175	58.279	298	27.54	152
	22	16.66	54	13.77	249	45.626	216	39.96	42	57.66	42	23.75	226	58.577	268	29.06	152
Apr.	1	17.20	47	16.26	266	45.842	190	40.38	21	58.08	34	26.01	267	58.845	237	30.58	148
	11	17.67	39	18.92	279	46.032	162	40.59	2	58.42	25	28.68	298	59.082	205	32.06	144
	21	18.06	31	21.71	285	46.194	134	40.61	14	58.67	15	31.66	317	59.287	170	33.50	137
Mai	1	18.37	23	24.56	285	46.328	105	40.47	28	58.82	6	34.83	325	59.457	136	34.87	130
	11	18.60	14	27.41	280	46.433	76	40.19	38	58.88	4	38.08	321	59.593	99	36.17	120
	20	[11] 18.74	5	30.21	269	[11] 46.509	47	39.81	46	[11] 58.84	13	41.29	308	[12] 59.692	62	37.37	108
	30	18.79	3	32.90	252	46.556	17	39.35	52	58.71	22	44.37	286	59.754	25	38.45	96
Juni	9	18.76	13	35.42	227	46.573	12	38.83	56	58.49	29	47.23	254	59.779	14	39.41	81
	19	18.63	21	37.69	198	46.561	42	38.27	57	58.20	36	49.77	216	59.765	51	40.22	64
	29	18.42	29	39.67	164	46.519	69	37.70	57	57.84	42	51.93	173	59.714	87	40.86	46
Juli	9	18.13	36	41.31	124	46.450	96	37.13	57	57.42	47	53.66	126	59.627	120	41.32	26
	19	17.77	41	42.55	81	46.354	118	36.56	56	56.95	51	54.92	76	59.507	149	41.58	4
	29	17.36	46	43.36	34	46.236	136	36.00	53	56.44	53	55.68	23	59.358	173	41.62	18
Aug.	8	16.90	48	43.70	14	46.100	150	35.47	50	55.91	55	55.91	29	59.185	189	41.44	41
	18	16.42	50	43.56	63	45.950	157	34.97	45	55.36	54	55.62	81	58.996	198	41.03	63
	28	15.92	48	42.93	110	45.793	155	34.52	39	54.82	53	54.81	133	58.798	196	40.40	83
Sept.	7	15.44	44	41.83	153	45.638	146	34.13	30	54.29	50	53.48	181	58.602	183	39.57	100
	17	15.00	39	40.30	193	45.492	127	33.83	21	53.79	46	51.67	227	58.419	160	38.57	114
	27	14.61	31	38.37	226	45.365	100	33.62	7	53.33	40	49.40	268	58.259	127	37.43	123
Okt.	7	14.30	21	36.11	249	45.265	66	33.55	8	52.93	32	46.72	304	58.132	83	36.20	127
	17	14.09	11	33.62	264	45.199	24	33.63	25	52.61	24	43.68	336	58.049	32	34.93	123
	27	13.98	2	30.98	268	45.175	24	33.88	46	52.37	14	40.32	359	58.017	26	33.70	114
Nov.	6	14.00	14	28.30	262	45.199	74	34.34	67	52.23	4	36.73	373	58.043	87	32.56	99
	16	14.14	27	25.68	245	45.273	125	35.01	89	52.19	8	33.00	380	58.130	148	31.57	78
	26	14.41	39	23.23	218	45.398	173	35.90	110	52.27	18	29.20	375	58.278	206	30.79	53
Dez.	6	14.80	49	21.05	183	45.571	217	37.00	128	52.45	29	25.45	359	58.484	259	30.26	25
	16	15.29	58	19.22	142	45.788	254	38.28	144	52.74	39	21.86	333	58.743	303	30.01	6
	26	15.87	66	17.80	95	46.042	283	39.72	153	53.13	48	18.53	296	59.046	337	30.07	35
	36	16.53		16.85		46.325		41.25		53.61		15.57		59.383		30.42	
Mittl. Ort		11.13		22.52		43.279		32.99		55.84		40.93		55.647		29.84	
sec δ, tg δ		2.723		−2.533		1.013		−0.161		2.622		+2.424		1.237		−0.728	
a, a'		+5.6		−13.3		+3.2		−13.3		+0.6		−13.3		+3.8		−13.0	
b, b'		+0.11		+ 0.75		+0.01		+ 0.75		−0.11		+ 0.75		+0.03		+ 0.76	

Scheinbare Sternörter 1939

Tag	569) γ Ursae min. AR.		569) γ Ursae min. Dekl.		568) μ Bootis AR.		568) μ Bootis Dekl.		571) ι Draconis AR.		571) ι Draconis Dekl.		572) β Coron. bor. AR.		572) β Coron. bor. Dekl.	
1939	$15^h\ 20^m$		$+72°\ 2'$		$15^h\ 22^m$		$+37°\ 35'$		$15^h\ 23^m$		$+59°\ 10'$		$15^h\ 25^m$		$+29°\ 18'$	
	s		"		s		"		s		"		s		"	
Jan. 1	44.75	61	50.77	266	10.349	310	16.08	270	32.286	407	33.43	279	18.258	294	47.10	260
11	45.36	68	48.11	212	10.659	335	13.38	231	32.693	451	30.64	230	18.552	315	44.50	227
21	46.04	74	45.99	152	10.994	349	11.07	185	33.144	480	28.34	172	18.867	328	42.23	186
31	46.78	76	44.47	86	11.343	353	9.22	131	33.624	494	26.62	109	19.195	330	40.37	140
Febr. 10	47.54	76	43.61	18	11.696	346	7.91	74	34.118	490	25.53	42	19.525	323	38.97	88
20	48.30	74	43.43	50	12.042	330	7.17	15	34.608	472	25.11	26	19.848	309	38.09	33
März 2	49.04	69	43.93	115	12.372	308	7.02	43	35.080	440	25.37	90	20.157	288	37.76	20
12	49.73	62	45.08	175	12.680	279	7.45	99	35.520	397	26.27	151	20.445	263	37.96	71
22	50.35	52	46.83	227	12.959	245	8.44	148	35.917	344	27.78	205	20.708	232	38.67	118
Apr. 1	50.87	42	49.10	269	13.204	208	9.92	190	36.261	283	29.83	248	20.940	200	39.85	158
11	51.29	31	51.79	300	13.412	169	11.82	224	36.544	218	32.31	283	21.140	166	41.43	192
21	51.60	19	54.79	320	13.581	129	14.06	248	36.762	151	35.14	305	21.306	131	43.35	216
Mai 1	51.79	7	57.99	328	13.710	88	16.54	263	36.913	81	38.19	318	21.437	96	45.51	232
11	51.86	6	61.27	325	13.798	48	19.17	269	36.994	13	41.37	319	21.533	60	47.83	239
20	[13] 51.80	16	64.52	312	[13] 13.846	8	21.86	265	[14] 37.007	53	44.56	309	[14] 21.593	24	50.22	239
30	51.64	28	67.64	290	13.854	30	24.51	254	36.954	116	47.65	291	21.617	11	52.61	230
Juni 9	51.36	38	70.54	259	13.824	68	27.05	235	36.838	176	50.56	265	21.606	45	54.91	215
19	50.98	46	73.13	221	13.756	104	29.40	209	36.662	229	53.21	230	21.561	78	57.06	195
29	50.52	54	75.34	178	13.652	135	31.49	179	36.433	276	55.51	191	21.483	108	59.01	168
Juli 9	49.98	60	77.12	131	13.517	165	33.28	144	36.157	318	57.42	146	21.375	137	60.69	139
19	49.38	65	78.43	80	13.352	189	34.72	106	35.839	351	58.88	99	21.238	160	62.08	107
29	48.73	68	79.23	28	13.163	209	35.78	66	35.488	376	59.87	49	21.078	179	63.15	71
Aug. 8	48.05	70	79.51	25	12.954	222	36.44	23	35.112	390	60.36	2	20.899	193	63.86	34
18	47.35	70	79.26	77	12.732	228	36.67	19	34.722	394	60.34	53	20.706	200	64.20	3
28	46.65	69	78.49	129	12.504	226	36.48	63	34.328	388	59.81	104	20.506	200	64.17	42
Sept. 7	45.96	64	77.20	177	12.278	215	35.85	105	33.940	369	58.77	153	20.306	190	63.75	81
17	45.32	59	75.43	224	12.063	195	34.80	146	33.571	339	57.24	200	20.116	173	62.94	118
27	44.73	53	73.19	265	11.868	166	33.34	186	33.232	296	55.24	243	19.943	146	61.76	154
Okt. 7	44.20	44	70.54	302	11.702	128	31.48	223	32.936	241	52.81	281	19.797	111	60.22	189
17	43.76	33	67.52	333	11.574	82	29.25	255	32.695	177	50.00	315	19.686	69	58.33	222
27	43.43	22	64.19	356	11.492	30	26.70	284	32.518	103	46.85	342	19.617	20	56.11	249
Nov. 6	43.21	9	60.63	372	11.462	26	23.86	306	32.415	22	43.43	361	19.597	33	53.62	273
16	43.12	4	56.91	378	11.488	85	20.80	322	32.393	63	39.82	371	19.630	87	50.89	290
26	43.16	18	53.13	374	11.573	144	17.58	328	32.456	147	36.11	372	19.717	141	47.99	300
Dez. 6	43.34	31	49.39	358	11.717	198	14.30	326	32.603	230	32.39	361	19.858	192	44.99	301
16	43.65	44	45.81	333	11.915	247	11.04	314	32.833	306	28.78	339	20.050	236	41.98	294
26	44.09	55	42.48	295	12.162	289	7.90	290	33.139	372	25.39	306	20.286	273	39.04	277
36	44.64		39.53		12.451		5.00		33.511		22.33		20.559		36.27	
Mittl. Ort	48.60		63.72		11.131		24.36		34.208		45.01		18.835		53.44	
sec δ, tg δ	3.245		+3.087		1.262		+0.770		1.952		+1.676		1.147		+0.562	
a, *a'*	−0.1		−12.8		+2.3		−12.7		+1.3		−12.6		+2.5		−12.5	
b, *b'*	−0.13		+ 0.77		−0.03		+ 0.77		−0.07		+ 0.78		−0.02		+ 0.78	

Tag	573) ν^1 Bootis AR.		Dekl.		575) γ Lupi AR.		Dekl.		578) α Coron. bor. AR.		Dekl.		577) γ Librae AR.		Dekl.	
1939	$15^h\ 28^m$		$+41°\ 2'$		$15^h\ 31^m$		$-40°\ 57'$		$15^h\ 32^m$		$+26°\ 54'$		$15^h\ 32^m$		$-14°\ 35'$	
	s		"		s		"		s		"		s		"	
Jan. 1	43.337	313	15.66	277	3.999	370	37.08	19	5.723	286	62.35	258	6.570	297	9.92	128
11	43.650	342	12.89	238	4.369	391	37.27	48	6.009	309	59.77	228	6.867	313	11.20	134
21	43.992	358	10.51	189	4.760	401	37.75	75	6.318	321	57.49	190	7.180	321	12.54	135
31	44.350	365	8.62	134	5.161	400	38.50	99	6.639	325	55.59	145	7.501	321	13.89	131
Febr. 10	44.715	360	7.28	75	5.561	392	39.49	118	6.964	320	54.14	95	7.822	313	15.20	122
20	45.075	346	6.53	14	5.953	376	40.67	134	7.284	306	53.19	43	8.135	300	16.42	110
März 2	45.421	323	6.39	47	6.329	353	42.01	145	7.590	287	52.76	10	8.435	281	17.52	93
12	45.744	294	6.86	103	6.682	328	43.46	153	7.877	263	52.86	60	8.716	260	18.45	76
22	46.038	260	7.89	155	7.010	298	44.99	158	8.140	235	53.46	106	8.976	236	19.21	59
Apr. 1	46.298	221	9.44	199	7.308	267	46.57	159	8.375	205	54.52	147	9.212	210	19.80	41
11	46.519	181	11.43	234	7.575	233	48.16	159	8.580	172	55.99	180	9.422	184	20.21	26
21	46.700	139	13.77	259	7.808	197	49.75	157	8.752	139	57.79	205	9.606	157	20.47	11
Mai 1	46.839	95	16.36	275	8.005	160	51.32	151	8.891	104	59.84	222	9.763	128	20.58	1
11	46.934	52	19.11	281	8.165	121	52.83	144	8.995	69	62.06	231	9.891	98	20.57	11
20	^{15}46.986	10	21.92	278	^{15}8.286	81	54.27	135	^{16}9.064	34	64.37	231	^{16}9.989	67	20.46	18
30	46.996	33	24.70	266	8.367	39	55.62	123	9.098	0	66.68	225	10.056	36	20.28	25
Juni 9	46.963	72	27.36	247	8.406	4	56.85	108	9.098	34	68.93	211	10.092	4	20.03	30
19	46.891	110	29.83	220	8.402	45	57.93	92	9.064	66	71.04	192	10.096	27	19.73	34
29	46.781	145	32.03	188	8.357	86	58.85	72	8.998	98	72.96	169	10.069	59	19.39	37
Juli 9	46.636	176	33.91	153	8.271	124	59.57	49	8.900	127	74.65	141	10.010	87	19.02	40
19	46.460	203	35.44	112	8.147	157	60.06	26	8.773	151	76.06	109	9.923	114	18.62	43
29	46.257	223	36.56	70	7.990	185	60.32	0	8.622	171	77.15	76	9.809	136	18.19	44
Aug. 8	46.034	238	37.26	27	7.805	205	60.32	27	8.451	186	77.91	41	9.673	152	17.75	45
18	45.796	245	37.53	19	7.600	216	60.05	53	8.265	195	78.32	5	9.521	162	17.30	47
28	45.551	244	37.34	64	7.384	217	59.52	78	8.070	195	78.37	32	9.359	164	16.83	45
Sept. 7	45.307	234	36.70	107	7.167	206	58.74	101	7.875	188	78.05	70	9.195	157	16.38	43
17	45.073	214	35.63	151	6.961	184	57.73	121	7.687	171	77.35	106	9.038	141	15.95	38
27	44.859	185	34.12	192	6.777	150	56.52	134	7.516	146	76.29	141	8.897	115	15.57	31
Okt. 7	44.674	146	32.20	230	6.627	104	55.18	143	7.370	113	74.88	176	8.782	81	15.26	19
17	44.528	99	29.90	264	6.523	51	53.75	146	7.257	71	73.12	209	8.701	40	15.07	6
27	44.429	45	27.26	293	6.472	9	52.29	141	7.186	23	71.03	236	8.661	8	15.01	10
Nov. 6	44.384	13	24.33	316	6.481	74	50.88	130	7.163	28	68.67	261	8.669	59	15.11	30
16	44.397	74	21.17	332	6.555	140	49.58	111	7.191	82	66.06	279	8.728	111	15.41	50
26	44.471	136	17.85	339	6.695	202	48.47	89	7.273	135	63.27	291	8.839	161	15.91	71
Dez. 6	44.607	193	14.46	335	6.897	259	47.58	61	7.408	185	60.36	294	9.000	208	16.62	91
16	44.800	245	11.11	323	7.156	309	46.97	30	7.593	229	57.42	288	9.208	247	17.53	108
26	45.045	290	7.88	298	7.465	347	46.67	0	7.822	266	54.54	273	9.455	279	18.61	122
36	45.335		4.90		7.812		46.67		8.088		51.81		9.734		19.83	
Mittl. Ort	44.267		24.10		3.974		48.25		6.277		67.72		6.615		14.83	
sec δ, tg δ	1.326		+0.871		1.324		−0.868		1.122		+0.508		1.033		−0.260	
a, a'	+2.2		−12.3		+4.0		−12.1		+2.5		−12.1		+3.4		−12.1	
b, b'	−0.04		+ 0.79		+0.04		+ 0.80		−0.02		+ 0.80		+0.01		+ 0.80	

Scheinbare Sternörter 1939

Tag	582) α Serpentis				583) β Serpentis				584) κ Serpentis				590) ζ Ursae min.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$15^h\ 41^m$		+6° 36′		$15^h\ 43^m$		+15° 36′		$15^h\ 45^m$		+18° 19′		$15^h\ 46^m$		+77° 58′	
Jan. 1	15.430	274	58.36	203	21.894	271	38.91	232	59.146	270	40.44	240	5.03	76	48.28	280
11	15.704	293	56.33	191	22.165	293	36.59	212	59.416	293	38.04	218	5.79	89	45.48	231
21	15.997	303	54.42	171	22.458	305	34.47	184	59.709	306	35.86	188	6.68	100	43.17	174
31	16.300	306	52.71	145	22.763	309	32.63	149	60.015	310	33.98	151	7.68	107	41.43	110
Febr. 10	16.606	300	51.26	113	23.072	305	31.14	109	60.325	307	32.47	109	8.75	109	40.33	43
20	16.906	289	50.13	79	23.377	294	30.05	67	60.632	296	31.38	63	9.84	108	39.90	24
März 2	17.195	273	49.34	42	23.671	277	29.38	22	60.928	281	30.75	17	10.92	103	40.14	91
12	17.468	253	48.92	6	23.948	257	29.16	22	61.209	260	30.58	29	11.95	94	41.05	153
22	17.721	229	48.86	28	24.205	233	29.38	62	61.469	236	30.87	71	12.89	84	42.58	207
Apr. 1	17.950	205	49.14	60	24.438	207	30.00	98	61.705	210	31.58	109	13.73	69	44.65	253
11	18.155	178	49.74	87	24.645	179	30.98	129	61.915	182	32.67	142	14.42	52	47.18	288
21	18.333	151	50.61	108	24.824	150	32.27	154	62.097	152	34.09	167	14.94	35	50.06	313
Mai 1	18.484	122	51.69	124	24.974	119	33.81	171	62.249	120	35.76	184	15.29	17	53.19	327
11	18.606	92	52.93	136	25.093	89	35.52	182	62.369	89	37.60	195	15.46	1	56.46	328
20	18 18.698	62	54.29	140	19 25.182	57	37.34	186	19 62.458	57	39.55	200	19 15.45	19	59.74	320
30	18.760	31	55.69	140	25.239	24	39.20	184	62.515	23	41.55	196	15.26	36	62.94	302
Juni 9	18.791	0	57.09	137	25.263	8	41.04	176	62.538	9	43.51	188	14.90	52	65.96	275
19	18.791	31	58.46	129	25.255	40	42.80	163	62.529	42	45.39	174	14.38	67	68.71	242
29	18.760	62	59.75	117	25.215	70	44.43	147	62.487	73	47.13	156	13.71	79	71.13	201
Juli 9	18.698	89	60.92	104	25.145	99	45.90	126	62.414	103	48.69	134	12.92	90	73.14	156
19	18.609	115	61.96	88	25.046	126	47.16	104	62.311	129	50.03	109	12.02	98	74.70	108
29	18.494	137	62.84	71	24.920	147	48.20	79	62.182	151	51.12	82	11.04	104	75.78	56
Aug. 8	18.357	153	63.55	51	24.773	163	48.99	53	62.031	168	51.94	54	10.00	109	76.34	5
18	18.204	164	64.06	32	24.610	174	49.52	25	61.863	179	52.48	23	8.91	109	76.39	47
28	18.040	167	64.38	11	24.436	178	49.77	4	61.684	182	52.71	7	7.82	108	75.92	99
Sept. 7	17.873	162	64.49	11	24.258	172	49.73	34	61.502	178	52.64	38	6.74	105	74.93	149
17	17.711	148	64.38	34	24.086	158	49.39	63	61.324	164	52.26	71	5.69	99	73.44	196
27	17.563	125	64.04	58	23.928	136	48.76	93	61.160	142	51.55	102	4.70	89	71.48	239
Okt. 7	17.438	94	63.46	82	23.792	105	47.83	122	61.018	111	50.53	133	3.81	78	69.09	279
17	17.344	55	62.64	108	23.687	66	46.61	152	60.907	72	49.20	163	3.03	63	66.30	313
27	17.289	12	61.56	131	23.621	21	45.09	178	60.835	27	47.57	191	2.40	48	63.17	340
Nov. 6	17.277	37	60.25	154	23.600	27	43.31	203	60.808	22	45.66	216	1.92	30	59.77	359
16	17.314	87	58.71	175	23.627	78	41.28	223	60.830	74	43.50	236	1.62	11	56.18	370
26	17.401	136	56.96	192	23.705	128	39.05	238	60.904	124	41.14	251	1.51	9	52.48	371
Dez. 6	17.537	182	55.04	204	23.833	176	36.67	247	61.028	171	38.63	259	1.60	29	48.77	361
16	17.719	222	53.00	209	24.009	218	34.20	248	61.199	215	36.04	259	1.89	48	45.16	339
26	17.941	255	50.91	209	24.227	252	31.72	242	61.414	251	33.45	251	2.37	66	41.77	307
36	18.196		48.82		24.479		29.30		61.665		30.94		3.03		38.70	
Mittl. Ort	15.696		58.51		22.289		41.08		59.595		43.08		11.60		59.04	
sec δ, tg δ	1.007		+0.116		1.038		+0.280		1.054		+0.331		4.803		+4.698	
a, a'	+2.9		−11.4		+2.8		−11.3		+2.7		−11.1		−2.2		−11.0	
b, b'	0.00		+ 0.82		−0.01		+ 0.83		−0.01		+ 0.83		−0.17		+ 0.83	

Tag	585) μ Serpentis AR.		585) μ Serpentis Dekl.		588) ε Serpentis AR.		588) ε Serpentis Dekl.		589) β Triang. austr. AR.		589) β Triang. austr. Dekl.		593) ε Coron. bor. AR.		593) ε Coron. bor. Dekl.	
1939	$15^h\ 46^m$		$-3°\ 14'$		$15^h\ 47^m$		$+4°\ 39'$		$15^h\ 49^m$		$-63°\ 14'$		$15^h\ 55^m$		$+27°\ 2'$	
Jan. 1	25.863	275	39.44	167	46.131	270	36.62	196	44.54	55	25.86	93	3.003	269	67.99	265
11	26.138	294	41.11	163	46.401	290	34.66	185	45.09	59	24.93	50	3.272	295	65.34	237
21	26.432	305	42.74	152	46.691	301	32.81	167	45.68	62	24.43	8	3.567	312	62.97	201
31	26.737	308	44.26	137	46.992	305	31.14	144	46.30	63	24.35	35	3.879	319	60.96	157
Febr. 10	27.045	302	45.63	116	47.297	301	29.70	114	46.93	63	24.70	74	4.198	319	59.39	107
20	27.347	291	46.79	91	47.598	290	28.56	81	47.56	60	25.44	111	4.517	311	58.32	56
März 2	27.638	277	47.70	64	47.888	275	27.75	47	48.16	59	26.55	144	4.828	296	57.76	2
12	27.915	257	48.34	36	48.163	256	27.28	12	48.75	55	27.99	172	5.124	276	57.74	49
22	28.172	235	48.70	9	48.419	234	27.16	21	49.30	50	29.71	197	5.400	251	58.23	98
Apr. 1	28.407	212	48.79	16	48.653	210	27.37	52	49.80	46	31.68	217	5.651	223	59.21	141
11	28.619	186	48.63	37	48.863	184	27.89	78	50.26	40	33.85	232	5.874	193	60.62	176
21	28.805	160	48.26	57	49.047	157	28.67	99	50.66	34	36.17	243	6.067	161	62.38	205
Mai 1	28.965	133	47.69	71	49.204	129	29.66	115	51.00	27	38.60	249	6.228	128	64.43	225
11	29.098	103	46.98	81	49.333	100	30.81	126	51.27	21	41.09	250	6.356	93	66.68	236
20*)	[19] 29.201	73	46.17	87	[20] 49.433	69	32.07	132	[20] 51.48	13	43.59	246	6.449 [22]	56	69.04	240
30	29.274	43	45.30	91	49.502	39	33.39	133	51.61	6	46.05	236	6.505	21	71.44	235
Juni 9	29.317	11	44.39	90	49.541	7	34.72	129	51.67	2	48.41	220	6.526	14	73.79	224
19	29.328	21	43.49	87	49.548	25	36.01	123	51.65	9	50.61	200	6.512	50	76.03	207
29	29.307	52	42.62	83	49.523	56	37.24	113	51.56	16	52.61	173	6.462	84	78.10	184
Juli 9	29.255	81	41.79	76	49.467	85	38.37	100	51.40	23	54.34	142	6.378	116	79.94	158
19	29.174	108	41.03	69	49.382	111	39.37	87	51.17	29	55.76	105	6.262	144	81.52	127
29	29.066	131	40.34	59	49.271	134	40.24	70	50.88	34	56.81	66	6.118	168	82.79	94
Aug. 8	28.935	149	39.75	50	49.137	151	40.94	53	50.54	38	57.47	23	5.950	187	83.73	59
18	28.786	160	39.25	38	48.986	163	41.47	35	50.16	39	57.70	22	5.763	199	84.32	22
28	28.626	165	38.87	27	48.823	168	41.82	16	49.77	41	57.48	66	5.564	204	84.54	15
Sept. 7	28.461	160	38.60	14	48.655	163	41.98	5	49.36	39	56.82	108	5.360	200	84.39	52
17	28.301	146	38.46	1	48.492	150	41.93	26	48.97	35	55.74	148	5.160	186	83.87	90
27	28.155	125	38.47	18	48.342	128	41.67	48	48.62	30	54.26	183	4.974	165	82.97	128
Okt. 7	28.030	94	38.65	35	48.214	98	41.19	72	48.32	23	52.43	211	4.809	133	81.69	163
17	27.936	55	39.00	54	48.116	60	40.47	95	48.09	15	50.32	230	4.676	94	80.06	196
27	27.881	10	39.54	75	48.056	16	39.52	119	47.94	5	48.02	241	4.582	49	78.10	227
Nov. 6	27.871	38	40.29	96	48.040	32	38.33	141	47.89	5	45.61	241	4.533	2	75.83	253
16	27.909	88	41.25	116	48.072	82	36.92	162	47.94	15	43.20	234	4.535	56	73.30	273
26	27.997	138	42.41	135	48.154	130	35.30	180	48.09	26	40.86	215	4.591	109	70.57	288
Dez. 6	28.135	183	43.76	150	48.284	177	33.50	192	48.35	35	38.71	188	4.700	160	67.69	294
16	28.318	224	45.26	162	48.461	218	31.58	200	48.70	44	36.83	156	4.860	207	64.75	291
26	28.542	256	46.88	167	48.679	251	29.58	200	49.14	50	35.27	118	5.067	247	61.84	278
36	28.798		48.55		48.930		27.58		49.64		34.09		5.314		59.06	
Mittl. Ort	26.050		41.89		46.401		36.03		44.94		40.58		3.654		71.90	
sec δ, tg δ	1.002		−0.057		1.003		+0.082		2.221		−1.984		1.123		+0.511	
a, a'	+3.1		−11.0		+3.0		−10.9		+5.3		−10.8		+2.5		−10.4	
b, b'	0.00		+ 0.83		0.00		+ 0.84		+0.07		+ 0.84		−0.02		+ 0.86	

*) Bei Stern 593) lies Mai 21.

Tag	594) δ Scorpii AR.	594) δ Scorpii Dekl.	598) ϑ Draconis AR.	598) ϑ Draconis Dekl.	597) β Scorpii AR.	597) β Scorpii Dekl.	603) δ Ophiuchi AR.	603) δ Ophiuchi Dekl.
1939	15h 56m	−22° 26′	16h 0m	+58° 43′	16h 1m	−19° 38′	16h 11m	−3° 32′
	s	"	s	"	s	"	s	"
Jan. 1	43.209 295	52.17 80	42.486 351	31.49 306	52.996 286	17.80 90	8.517 259	16.32 159
11	43.504 316	52.97 92	42.837 405	28.43 263	53.282 308	18.70 99	8.776 282	17.91 155
21	43.820 329	53.89 101	43.242 445	25.80 210	53.590 321	19.69 105	9.058 296	19.46 146
31	44.149 333	54.90 105	43.687 470	23.70 151	53.911 326	20.74 107	9.354 302	20.92 130
Febr. 10	44.482 329	55.95 105	44.157 481	22.19 85	54.237 323	21.81 103	9.656 302	22.22 110
20	44.811 319	57.00 101	44.638 476	21.34 18	54.560 314	22.84 96	9.958 296	23.32 86
März 2	45.130 305	58.01 94	45.114 457	21.16 50	54.874 301	23.80 87	10.254 284	24.18 60
12	45.435 286	58.95 86	45.571 425	21.66 113	55.175 283	24.67 75	10.538 269	24.78 32
22	45.721 265	59.81 75	45.996 383	22.79 172	55.458 263	25.42 63	10.807 250	25.10 5
Apr. 1	45.986 241	60.56 64	46.379 333	24.51 223	55.721 241	26.05 50	11.057 229	25.15 20
11	46.227 216	61.20 55	46.712 275	26.74 264	55.962 217	26.55 38	11.286 207	24.95 42
21	46.443 190	61.75 45	46.987 212	29.38 296	56.179 190	26.93 28	11.493 182	24.53 61
Mai 1	46.633 160	62.20 37	47.199 146	32.34 316	56.369 161	27.21 18	11.675 155	23.92 75
11	46.793 129	62.57 29	47.345 78	35.50 326	56.530 132	27.39 11	11.830 127	23.17 86
21	46.922 97	62.86 22	47.423 11	38.76 324	56.662 100	27.50 4	11.957 97	22.31 92
30	(22) 47.019 63	63.08 17	(23) 47.434 56	42.00 314	(23) 56.762 66	27.54 1	(26) 12.054 65	21.39 95
Juni 9	47.082 27	63.25 11	47.378 120	45.14 294	56.828 32	27.53 5	12.119 32	20.44 94
19	47.109 8	63.36 5	47.258 180	48.08 266	56.860 4	27.48 9	12.151 2	19.50 91
29	47.101 44	63.41 2	47.078 236	50.74 232	56.856 39	27.39 14	12.149 35	18.59 85
Juli 9	47.057 78	63.39 8	46.842 286	53.06 192	56.817 73	27.25 18	12.114 67	17.74 79
19	46.979 109	63.31 15	46.556 328	54.98 147	56.744 105	27.07 22	12.047 98	16.95 70
29	46.870 136	63.16 23	46.228 362	56.45 100	56.639 132	26.85 28	11.949 124	16.25 61
Aug. 8	46.734 158	62.93 32	45.866 388	57.45 50	56.507 153	26.57 33	11.825 146	15.64 50
18	46.576 172	62.61 39	45.478 403	57.95 1	56.354 168	26.24 37	11.679 161	15.14 39
28	46.404 178	62.22 46	45.075 407	57.94 53	56.186 176	25.87 42	11.518 169	14.75 28
Sept. 7	46.226 175	61.76 52	44.668 398	57.41 104	56.010 173	25.45 45	11.349 168	14.47 15
17	46.051 161	61.24 55	44.270 377	56.37 153	55.837 161	25.00 46	11.181 159	14.32 1
27	45.890 137	60.69 56	43.893 343	54.84 200	55.676 139	24.54 44	11.022 140	14.31 15
Okt. 7	45.753 105	60.13 53	43.550 297	52.84 243	55.537 107	24.10 40	10.882 112	14.46 32
17	45.648 64	59.60 47	43.253 238	50.41 283	55.430 67	23.70 32	10.770 75	14.78 50
27	45.584 15	59.13 36	43.015 170	47.58 316	55.363 20	23.38 20	10.695 33	15.28 69
Nov. 6	45.569 38	58.77 23	42.845 93	44.42 342	55.343 31	23.18 6	10.662 15	15.97 89
16	45.607 91	58.54 5	42.752 10	41.00 361	55.374 85	23.12 11	10.677 64	16.86 108
26	45.698 145	58.49 14	42.742 74	37.39 369	55.459 137	23.23 29	10.741 114	17.94 126
Dez. 6	45.843 195	58.63 33	42.816 158	33.70 367	55.596 186	23.52 49	10.855 161	19.20 142
16	46.038 238	58.96 54	42.974 238	30.03 354	55.782 229	24.01 66	11.016 203	20.62 152
26	46.276 275	59.50 71	43.212 311	26.49 328	56.011 265	24.67 82	11.219 238	22.14 159
36	46.551	60.21	43.523	23.21	56.276	25.49	11.457	23.73
Mittl. Ort	43.331	59.32	44.609	39.64	53.150	24.38	8.797	19.59
sec δ, tg δ	1.082	−0.413	1.927	+1.647	1.062	−0.357	1.002	−0.062
a, *a′*	+3.5	−10.3	+1.2	−10.0	+3.5	−9.9	+3.1	−9.2
b, *b′*	+0.01	+ 0.86	−0.05	+ 0.87	+0.01	+0.87	0.00	+0.89

Tag	606) 19 Ursae min. AR.		606) Dekl.		605) ε Ophiuchi AR.		605) Dekl.		604) γ^2 Normae AR.		604) Dekl.		608) τ Herculis AR.		608) Dekl.	
1939	16^h 12^m		+76° 1′		16^h 15^m		−4° 32′		16^h 15^m		−50° 0′		16^h 17^m		+46° 27′	
Jan. 1	26.34	58	46.82	303	5.181	257	39.81	152	15.534	383	16.11	66	52.991	278	22.42	309
11	26.92	72	43.79	260	5.438	281	41.33	150	15.917	419	15.45	34	53.269	320	19.33	273
21	27.64	82	41.19	207	5.719	295	42.83	141	16.336	442	15.11	3	53.589	351	16.60	227
31	28.46	89	39.12	147	6.014	303	44.24	127	16.778	453	15.08	27	53.940	371	14.33	174
Febr. 10	29.35	94	37.65	81	6.317	303	45.51	108	17.231	456	15.35	55	54.311	380	12.59	115
20	30.29	95	36.84	13	6.620	296	46.59	85	17.687	449	15.90	81	54.691	379	11.44	51
März 2	31.24	93	36.71	54	6.916	286	47.44	60	18.136	435	16.71	102	55.070	367	10.93	13
12	32.17	87	37.25	119	7.202	271	48.04	33	18.571	414	17.73	121	55.437	347	11.06	75
22	33.04	78	38.44	178	7.473	253	48.37	7	18.985	388	18.94	138	55.784	320	11.81	134
Apr. 1	33.82	68	40.22	229	7.726	233	48.44	18	19.373	359	20.32	151	56.104	286	13.15	186
11	34.50	55	42.51	270	7.959	211	48.26	39	19.732	324	21.83	161	56.390	247	15.01	229
21	35.05	41	45.21	302	8.170	186	47.87	57	20.056	287	23.44	170	56.637	204	17.30	264
Mai 1	35.46	25	48.23	322	8.356	160	47.30	71	20.343	245	25.14	174	56.841	159	19.94	289
11	35.71	10	51.45	331	8.516	132	46.59	82	20.588	199	26.88	176	57.000	111	22.83	303
21	35.81	5	54.76	330	8.648	101	45.77	88	20.787	150	28.64	174	57.111	61	25.86	308
	26				27				27				27			
30	35.76	21	58.06	319	8.749	69	44.89	90	20.937	99	30.38	170	57.172	12	28.94	302
Juni 9	35.55	35	61.25	298	8.818	37	43.99	91	21.036	46	32.08	161	57.184	38	31.96	289
19	35.20	48	64.23	269	8.855	2	43.08	87	21.082	9	33.69	148	57.146	85	34.85	267
29	34.72	61	66.92	234	8.857	32	42.21	82	21.073	64	35.17	131	57.061	130	37.52	239
Juli 9	34.11	71	69.26	193	8.825	64	41.39	76	21.009	115	36.48	110	56.931	173	39.91	204
19	33.40	80	71.19	147	8.761	95	40.63	68	20.894	163	37.58	84	56.758	210	41.95	166
29	32.60	87	72.66	99	8.666	122	39.95	60	20.731	205	38.42	57	56.548	243	43.61	124
Aug. 8	31.73	92	73.65	48	8.544	145	39.35	50	20.526	238	38.99	26	56.305	267	44.85	78
18	30.81	95	74.13	5	8.399	161	38.85	40	20.288	262	39.25	7	56.038	285	45.63	31
28	29.86	96	74.08	56	8.238	169	38.45	29	20.026	273	39.18	41	55.753	294	45.94	16
Sept. 7	28.90	94	73.52	107	8.069	169	38.16	17	19.753	271	38.77	73	55.459	291	45.78	65
17	27.96	89	72.45	158	7.900	160	37.99	4	19.482	255	38.04	104	55.168	279	45.13	112
27	27.07	84	70.87	204	7.740	142	37.95	11	19.227	224	37.00	131	54.889	257	44.01	159
Okt. 7	26.23	74	68.83	247	7.598	114	38.06	27	19.003	180	35.69	153	54.632	222	42.42	203
17	25.49	64	66.36	286	7.484	78	38.33	44	18.823	124	34.16	169	54.410	179	40.39	243
27	24.85	50	63.50	319	7.406	36	38.77	62	18.699	59	32.47	178	54.231	126	37.96	278
Nov. 6	24.35	35	60.31	344	7.370	12	39.39	82	18.640	14	30.69	178	54.105	66	35.18	309
16	24.00	20	56.87	362	7.382	61	40.21	101	18.654	89	28.91	172	54.039	3	32.09	332
26	23.80	1	53.25	370	7.443	111	41.22	118	18.743	164	27.19	159	54.036	63	28.77	346
Dez. 6	23.79	15	49.55	367	7.554	158	42.40	134	18.907	235	25.60	138	54.099	129	25.31	350
16	23.94	33	45.88	353	7.712	201	43.74	145	19.142	298	24.22	113	54.228	191	21.81	344
26	24.27	49	42.35	327	7.913	237	45.19	153	19.440	351	23.09	84	54.419	247	18.37	327
36	24.76		39.08		8.150		46.72		19.791		22.25		54.666		15.10	
Mittl. Ort	32.19		54.86		5.467		43.40		15.863		28.35		54.366		27.68	
sec δ, tg δ	4.143		+4.020		1.003		−0.080		1.556		−1.192		1.452		+1.052	
a, *a′*	−1.7		−9.1		+3.2		−8.9		+4.5		−8.8		+1.8		−8.6	
b, *b′*	−0.12		+0.89		0.00		+0.90		+0.04		+0.90		−0.03		+0.90	

Scheinbare Sternörter 1939

Tag	609) γ Herculis AR.		609) γ Herculis Dekl.		615) η Draconis AR.		615) η Draconis Dekl.		611) γ Apodis AR.		611) γ Apodis Dekl.		616) α Scorpii AR.		616) α Scorpii Dekl.	
1939	$16^h\ 19^m$		$+19°17'$		$16^h\ 23^m$		$+61°38'$		$16^h\ 23^m$		$-78°45'$		$16^h\ 25^m$		$-26°17'$	
	s		"		s		"		s		"		s		"	
Jan. 1	13.083	246	41.40	246	7.08	34	60.61	320	59.35	104	35.65	192	39.542	282	46.18	41
11	13.329	273	38.94	226	7.42	40	57.41	281	60.39	118	33.73	148	39.824	309	46.59	56
21	13.602	292	36.68	197	7.82	45	54.60	232	61.57	128	32.25	101	40.133	326	47.15	67
31	13.894	302	34.71	162	8.27	49	52.28	173	62.85	134	31.24	52	40.459	335	47.82	75
Febr. 10	14.196	305	33.09	120	8.76	52	50.55	110	64.19	137	30.72	3	40.794	337	48.57	78
20	14.501	301	31.89	74	9.28	51	49.45	42	65.56	137	30.69	45	41.131	333	49.35	79
März 2	14.802	291	31.15	26	9.79	50	49.03	26	66.93	134	31.14	90	41.464	322	50.14	77
12	15.093	276	30.89	21	10.29	48	49.29	92	68.27	129	32.04	132	41.786	309	50.91	73
22	15.369	257	31.10	66	10.77	44	50.21	154	69.56	122	33.36	170	42.095	291	51.64	67
Apr. 1	15.626	235	31.76	107	11.21	39	51.75	208	70.78	112	35.06	204	42.386	270	52.31	62
11	15.861	209	32.83	143	11.60	33	53.83	254	71.90	100	37.10	234	42.656	248	52.93	55
21	16.070	182	34.26	171	11.93	27	56.37	289	72.90	86	39.44	258	42.904	223	53.48	50
Mai 1	16.252	153	35.97	192	12.20	19	59.26	314	73.76	71	42.02	276	43.127	194	53.98	45
11	16.405	121	37.89	207	12.39	12	62.40	328	74.47	56	44.78	289	43.321	163	54.43	41
21	16.526	87	39.96	213	12.51	5	65.68	332	75.03	38	47.67	295	43.484	130	54.84	38
30	[28] 16.613	54	42.09	213	[29] 12.56	3	69.00	326	[29] 75.41	19	50.62	294	[29] 43.614	95	55.22	33
Juni 9	16.667	18	44.22	206	12.53	11	72.26	309	75.60	1	53.56	285	43.709	56	55.55	30
19	16.685	18	46.28	194	12.42	17	75.35	285	75.61	18	56.41	270	43.765	17	55.85	26
29	16.667	52	48.22	177	12.25	24	78.20	254	75.43	35	59.11	248	43.782	22	56.11	20
Juli 9	16.615	86	49.99	155	12.01	30	80.74	216	75.08	52	61.59	217	43.760	60	56.31	14
19	16.529	117	51.54	131	11.71	35	82.90	173	74.56	68	63.76	180	43.700	97	56.45	7
29	16.412	144	52.85	104	11.36	39	84.63	127	73.88	80	65.56	137	43.603	130	56.52	3
Aug. 8	16.268	166	53.89	74	10.97	43	85.90	78	73.08	91	66.93	89	43.473	156	56.49	13
18	16.102	182	54.63	44	10.54	45	86.68	26	72.17	98	67.82	38	43.317	176	56.36	23
28	15.920	191	55.07	12	10.09	45	86.94	25	71.19	101	68.20	16	43.141	188	56.13	34
Sept. 7	15.729	192	55.19	22	9.64	46	86.69	77	70.18	100	68.04	71	42.953	189	55.79	44
17	15.537	183	54.97	54	9.18	44	85.92	129	69.18	94	67.33	123	42.764	180	55.35	52
27	15.354	165	54.43	87	8.74	41	84.63	177	68.24	86	66.10	172	42.584	161	54.83	58
Okt. 7	15.189	138	53.56	120	8.33	36	82.86	223	67.38	72	64.38	216	42.423	131	54.25	61
17	15.051	103	52.36	151	7.97	31	80.63	266	66.66	55	62.22	252	42.292	91	53.64	61
27	14.948	60	50.85	181	7.66	23	77.97	302	66.11	35	59.70	278	42.201	44	53.03	56
Nov. 6	14.888	13	49.04	208	7.43	15	74.95	333	65.76	14	56.92	293	42.157	8	52.47	47
16	14.875	38	46.96	230	7.28	7	71.62	355	65.62	9	53.99	299	42.165	64	52.00	35
26	14.913	89	44.66	248	7.21	2	68.07	368	65.71	32	51.00	293	42.229	119	51.65	19
Dez. 6	15.002	138	42.18	258	7.23	12	64.39	370	66.03	55	48.07	276	42.348	171	51.46	2
16	15.140	184	39.60	261	7.35	20	60.69	362	66.58	76	45.31	250	42.519	218	51.44	15
26	15.324	223	36.99	256	7.55	29	57.07	341	67.34	93	42.81	215	42.737	258	51.59	33
36	15.547		34.43		7.84		53.66		68.27		40.66		42.995		51.92	
Mittl. Ort	13.666		42.35		9.62		66.86		61.88		50.73		39.786		54.23	
sec δ, tg δ	1.060		+0.350		2.106		+1.854		5.132		−5.034		1.116		−0.494	
a, *a'*	+2.6		−8.5		+0.8		−8.2		+9.2		−8.2		+3.7		−8.0	
b, *b'*	−0.01		+0.90		−0.05		+0.91		+0.14		+0.91		+0.01		+0.92	

Obere Kulmination Greenwich

Tag	618) β Herculis AR.		618) β Herculis Dekl.		619) *A* Draconis AR.		619) *A* Draconis Dekl.		621) σ Herculis AR.		621) σ Herculis Dekl.		622) ζ Ophiuchi AR.		622) ζ Ophiuchi Dekl.	
1939	16h 27m		+21° 37′		16h 28m		+68° 53′		16h 32m		+42° 33′		16h 33m		−10° 26′	
	s		″		s		″		s		″		s		″	
Jan. 1	35.149	239	15.49	254	1.86	39	54.39	321	6.907	254	38.94	308	47.535	250	37.30	117
11	35.388	268	12.95	234	2.25	49	51.18	282	7.161	294	35.86	277	47.785	275	38.47	119
21	35.656	289	10.61	204	2.74	56	48.36	231	7.455	325	33.09	236	48.060	293	39.66	117
31	35.945	302	8.57	167	3.30	61	46.05	173	7.780	347	30.73	185	48.353	303	40.83	108
Febr. 10	36.247	306	6.90	123	3.91	64	44.32	109	8.127	358	28.88	129	48.656	305	41.91	95
20	36.553	304	5.67	76	4.55	66	43.23	41	8.485	359	27.59	67	48.961	303	42.86	79
März 2	36.857	295	4.91	27	5.21	65	42.82	27	8.844	351	26.92	5	49.264	295	43.65	60
12	37.152	282	4.64	22	5.86	61	43.09	94	9.195	335	26.87	57	49.559	283	44.25	39
22	37.434	263	4.86	70	6.47	57	44.03	155	9.530	313	27.44	115	49.842	267	44.64	19
Apr. 1	37.697	242	5.56	113	7.04	50	45.58	211	9.843	285	28.59	167	50.109	250	44.83	2
11	37.939	217	6.69	149	7.54	42	47.69	256	10.128	251	30.26	213	50.359	230	44.81	18
21	38.156	190	8.18	180	7.96	34	50.25	292	10.379	213	32.39	249	50.589	206	44.63	34
Mai 1	38.346	160	9.98	203	8.30	24	53.17	318	10.592	173	34.88	276	50.795	182	44.29	45
11	38.506	128	12.01	218	8.54	14	56.35	332	10.765	129	37.64	293	50.977	153	43.84	53
21	38.634	94	14.19	225	8.68	3	59.67	335	10.894	84	40.57	301	51.130	123	43.31	59
30*)	30 38.728	59	16.44	226	30 8.71	6	63.02	329	31 10.978	37	43.58	299	31 51.253	91	42.72	62
Juni 9	38.787	23	18.70	219	8.65	16	66.31	313	11.015	9	46.57	288	51.344	56	42.10	62
19	38.810	14	20.89	206	8.49	26	69.44	288	11.006	56	49.45	270	51.400	21	41.48	61
29	38.796	50	22.95	189	8.23	35	72.32	257	10.950	101	52.15	245	51.421	16	40.87	58
Juli 9	38.746	85	24.84	167	7.88	42	74.89	219	10.849	142	54.60	213	51.405	51	40.29	54
19	38.661	117	26.51	141	7.46	49	77.08	175	10.707	181	56.73	178	51.354	84	39.75	50
29	38.544	146	27.92	112	6.97	54	78.83	128	10.526	214	58.51	138	51.270	115	39.25	45
Aug. 8	38.398	169	29.04	81	6.43	58	80.11	79	10.312	241	59.89	94	51.155	141	38.80	40
18	38.229	187	29.85	49	5.85	62	80.90	27	10.071	260	60.83	50	51.014	160	38.40	36
28	38.042	197	30.34	15	5.23	63	81.17	25	9.811	272	61.33	4	50.854	172	38.04	30
Sept. 7	37.845	198	30.49	20	4.60	62	80.92	77	9.539	274	61.37	43	50.682	175	37.74	24
17	37.647	191	30.29	54	3.98	60	80.15	129	9.265	264	60.94	90	50.507	168	37.50	16
27	37.456	174	29.75	89	3.38	57	78.86	178	9.001	245	60.04	136	50.339	152	37.34	8
Okt. 7	37.282	148	28.86	124	2.81	51	77.08	224	8.756	216	58.68	180	50.187	127	37.26	2
17	37.134	114	27.62	156	2.30	43	74.84	267	8.540	176	56.88	220	50.060	92	37.28	15
27	37.020	72	26.06	188	1.87	35	72.17	304	8.364	128	54.68	258	49.968	50	37.43	28
Nov. 6	36.948	24	24.18	215	1.52	25	69.13	334	8.236	72	52.10	290	49.918	3	37.71	45
16	36.924	27	22.03	238	1.27	14	65.79	356	8.164	13	49.20	315	49.915	47	38.16	61
26	36.951	78	19.65	256	1.13	2	62.23	369	8.151	49	46.05	332	49.962	97	38.77	77
Dez. 6	37.029	128	17.09	267	1.11	10	58.54	372	8.200	111	42.73	340	50.059	146	39.54	93
16	37.157	175	14.42	271	1.21	22	54.82	362	8.311	170	39.33	338	50.205	190	40.47	105
26	37.332	216	11.71	264	1.43	33	51.20	342	8.481	223	35.95	324	50.395	227	41.52	115
36	37.548		9.07		1.76		47.78		8.704		32.71		50.622		42.67	
Mittl. Ort	35.798		16.36		5.56		60.56		8.154		42.53		47.849		42.48	
sec δ, tg δ	1.076		+0.396		2.778		+2.592		1.358		+0.918		1.017		−0.184	
a, *a′*	+2.6		−7.9		−0.1		−7.8		+1.9		−7.5		+3.3		−7.4	
b, *b′*	−0.01		+0.92		−0.07		+0.92		−0.02		+0.93		0.00		+0.93	

*) Bei Stern 621) und 622) lies Mai 31.

Tag		626) η Herculis AR.		626) η Herculis Dekl.		625) α Triang. austr. AR.		625) α Triang. austr. Dekl.	
1939		16h 40m		+39° 1′		16h 42m		−68° 54′	
		s		″		s		″	
Jan.	1	47.114	239	71.79	305	9.83	58	53.92	176
	11	47.353	278	68.74	276	10.41	65	52.16	140
	21	47.631	309	65.98	238	11.06	70	50.76	99
	31	47.940	330	63.60	191	11.76	75	49.77	58
Febr.	10	48.270	341	61.69	136	12.51	76	49.19	16
	20	48.611	344	60.33	77	13.27	77	49.03	25
März	2	48.955	339	59.56	16	14.04	76	49.28	64
	12	49.294	325	59.40	44	14.80	74	49.92	101
	22	49.619	306	59.84	102	15.54	71	50.93	134
Apr.	1	49.925	280	60.86	154	16.25	65	52.27	164
	11	50.205	251	62.40	199	16.90	60	53.91	191
	21	50.456	217	64.39	236	17.50	54	55.82	213
Mai	1	50.673	180	66.75	264	18.04	46	57.95	231
	11	50.853	139	69.39	283	18.50	38	60.26	244
	21	50.992	97	72.22	292	18.88	29	62.70	252
	31	51.089	53	75.14	292	19.17	19	65.22	254
Juni	9	2 51.142	8	78.06	283	3 19.36	9	67.76	249
	19	51.150	36	80.89	267	19.45	1	70.25	239
	29	51.114	80	83.56	244	19.44	11	72.64	222
Juli	9	51.034	121	86.00	215	19.33	21	74.86	198
	19	50.913	160	88.15	182	19.12	30	76.84	168
	29	50.753	193	89.97	144	18.82	38	78.52	133
Aug.	8	50.560	221	91.41	102	18.44	44	79.85	92
	18	50.339	242	92.43	60	18.00	50	80.77	47
	28	50.097	254	93.03	15	17.50	52	81.24	1
Sept.	7	49.843	257	93.18	30	16.98	53	81.23	48
	17	49.586	251	92.88	75	16.45	51	80.75	96
	27	49.335	234	92.13	120	15.94	46	79.79	140
Okt.	7	49.101	207	90.93	164	15.48	40	78.39	181
	17	48.894	170	89.29	204	15.08	31	76.58	214
	27	48.724	125	87.25	242	14.77	21	74.44	240
Nov.	6	48.599	72	84.83	274	14.56	9	72.04	256
	16	48.527	16	82.09	301	14.47	4	69.48	263
	26	48.511	44	79.08	319	14.51	16	66.85	259
Dez.	6	48.555	102	75.89	329	14.67	29	64.26	246
	16	48.657	159	72.60	330	14.96	41	61.80	225
	26	48.816	209	69.30	324	15.37	51	59.55	196
	36	49.025		66.06		15.88		57.59	
Mittl. Ort		48.249		74.24		11.13		67.53	
sec δ, tg δ		1.287		+0.811		2.780		−2.594	
a, *a′*		+2.1		−6.8		+6.3		−6.7	
b, *b′*		−0.02		+0.94		+0.06		+0.94	

Tag		627) Grb 2377 AR.		627) Grb 2377 Dekl.		628) ε Scorpii AR.		628) ε Scorpii Dekl.	
1939		16h 44m		+56° 53′		16h 46m		−34° 10′	
		s		″		s		″	
Jan.	1	6.136	276	20.79	329	12.076	283	54.20	13
	11	6.412	337	17.50	296	12.359	315	54.07	4
	21	6.749	386	14.54	251	12.674	338	54.11	21
	31	7.135	422	12.03	197	13.012	352	54.32	35
Febr.	10	7.557	446	10.06	137	13.364	358	54.67	47
	20	8.003	455	8.69	70	13.722	357	55.14	56
März	2	8.458	451	7.99	3	14.079	351	55.70	62
	12	8.909	435	7.96	63	14.430	339	56.32	67
	22	9.344	407	8.59	126	14.769	325	56.99	70
Apr.	1	9.751	371	9.85	183	15.094	305	57.69	72
	11	10.122	325	11.68	233	15.399	284	58.41	74
	21	10.447	272	14.01	272	15.683	258	59.15	75
Mai	1	10.719	215	16.73	302	15.941	229	59.90	76
	11	10.934	153	19.75	322	16.170	197	60.66	76
	21	11.087	89	22.97	330	16.367	161	61.42	77
	31	11.176	24	26.27	328	16.528	121	62.19	76
Juni	9	3 11.200	41	29.55	318	4 16.649	80	62.95	73
	19	11.159	105	32.73	299	16.729	36	63.68	70
	29	11.054	165	35.72	271	16.765	8	64.38	63
Juli	9	10.889	222	38.43	238	16.757	52	65.01	55
	19	10.667	273	40.81	199	16.705	95	65.56	44
	29	10.394	316	42.80	155	16.610	132	66.00	32
Aug.	8	10.078	352	44.35	108	16.478	165	66.32	16
	18	9.726	379	45.43	59	16.313	191	66.48	1
	28	9.347	393	46.02	9	16.122	206	66.47	19
Sept.	7	8.954	397	46.11	43	15.916	212	66.28	36
	17	8.557	387	45.68	95	15.704	206	65.92	53
	27	8.170	366	44.73	145	15.498	189	65.39	69
Okt.	7	7.804	330	43.28	192	15.309	159	64.70	80
	17	7.474	283	41.36	237	15.150	120	63.90	88
	27	7.191	224	38.99	277	15.030	71	63.02	92
Nov.	6	6.967	157	36.22	311	14.959	16	62.10	90
	16	6.810	81	33.11	339	14.943	42	61.20	84
	26	6.729	1	29.72	357	14.985	102	60.36	73
Dez.	6	6.728	80	26.15	365	15.087	158	59.63	59
	16	6.808	159	22.50	361	15.245	211	59.04	42
	26	6.967	233	18.89	347	15.456	257	58.62	23
	36	7.200		15.42		15.713		58.39	
Mittl. Ort		8.274		24.66		12.426		63.44	
sec δ, tg δ		1.831		+1.533		1.209		−0.679	
a, *a′*		+1.1		−6.5		+3.9		−6.3	
b, *b′*		−0.03		+0.95		+0.01		+0.95	

Tag	629) 49 Herculis AR.		Dekl.		630) ζ^2 Scorpii AR.		Dekl.	
1939	$16^h\ 49^m$		$+15°\ 4'$		$16^h\ 50^m$		$-42°\ 15'$	
	s		"		s		"	
Jan. 1	17.563	221	31.71	231	16.580	308	21.55	60
11	17.784	250	29.40	216	16.888	345	20.95	36
21	18.034	273	27.24	193	17.233	371	20.59	15
31	18.307	288	25.31	162	17.604	387	20.44	6
Febr. 10	18.595	295	23.69	125	17.991	396	20.50	26
20	18.890	296	22.44	85	18.387	397	20.76	43
März 2	19.186	292	21.59	40	18.784	390	21.19	58
12	19.478	282	21.19	5	19.174	380	21.77	72
22	19.760	268	21.24	47	19.554	363	22.49	82
Apr. 1	20.028	251	21.71	88	19.917	343	23.31	92
11	20.279	230	22.59	123	20.260	319	24.23	100
21	20.509	207	23.82	152	20.579	291	25.23	108
Mai 1	20.716	180	25.34	175	20.870	259	26.31	113
11	20.896	151	27.09	192	21.129	222	27.44	117
21	21.047	120	29.01	200	21.351	181	28.61	121
31	21.167	85	31.01	202	21.532	137	29.82	120
Juni 9	4 21.252	50	33.03	199	5 21.669	91	31.02	119
19	21.302	14	35.02	190	21.760	41	32.21	114
29	21.316	23	36.92	176	21.801	9	33.35	105
Juli 9	21.293	60	38.68	158	21.792	59	34.40	93
19	21.233	94	40.26	137	21.733	107	35.33	79
29	21.139	125	41.63	113	21.626	149	36.12	60
Aug. 8	21.014	152	42.76	87	21.477	185	36.72	38
18	20.862	172	43.63	59	21.292	214	37.10	14
28	20.690	186	44.22	31	21.078	233	37.24	11
Sept. 7	20.504	191	44.53	1	20.845	240	37.13	36
17	20.313	187	44.54	29	20.605	233	36.77	61
27	20.126	174	44.25	60	20.372	214	36.16	84
Okt. 7	19.952	151	43.65	90	20.158	183	35.32	104
17	19.801	120	42.75	120	19.975	139	34.28	119
27	19.681	81	41.55	149	19.836	86	33.09	128
Nov. 6	19.600	36	40.06	176	19.750	26	31.81	133
16	19.564	12	38.30	199	19.724	39	30.48	131
26	19.576	62	36.31	218	19.763	104	29.17	122
Dez. 6	19.638	111	34.13	231	19.867	168	27.95	109
16	19.749	156	31.82	238	20.035	227	26.86	92
26	19.905	197	29.44	238	20.262	277	25.94	72
36	20.102		27.06		20.539		25.22	
Mittl. Ort	18.160		30.32		17.015		31.87	
sec δ, tg δ	1.036		+0.269		1.351		−0.909	
a, a'	+2.7		−6.1		+4.2		−6.0	
b, b'	−0.01		+0.95		+0.02		+0.95	

Tag	631) ζ Arae AR.		Dekl.		633) κ Ophiuchi AR.		Dekl.	
1939	$16^h\ 53^m$		$-55°\ 53'$		$16^h\ 54^m$		$+9°\ 27'$	
	s		"		s		"	
Jan. 1	33.089	381	34.38	132	46.238	217	68.73	206
11	33.470	431	33.06	101	46.455	247	66.67	195
21	33.901	469	32.05	70	46.702	268	64.72	177
31	34.370	493	31.35	39	46.970	283	62.95	151
Febr. 10	34.863	507	30.96	8	47.253	291	61.44	119
20	35.370	511	30.88	23	47.544	292	60.25	83
März 2	35.881	506	31.11	51	47.836	289	59.42	45
12	36.387	492	31.62	77	48.125	280	58.97	4
22	36.879	473	32.39	101	48.405	267	58.93	35
Apr. 1	37.352	446	33.40	122	48.672	251	59.28	70
11	37.798	414	34.62	142	48.923	233	59.98	102
21	38.212	376	36.04	158	49.156	211	61.00	130
Mai 1	38.588	332	37.62	171	49.367	185	62.30	151
11	38.920	283	39.33	182	49.552	158	63.81	165
21	39.203	228	41.15	189	49.710	127	65.46	174
31	39.431	168	43.04	192	49.837	95	67.20	177
Juni 9	5 39.599	105	44.96	189	6 49.932	60	68.97	174
19	39.704	39	46.85	183	49.992	23	70.71	166
29	39.743	27	48.68	172	50.015	13	72.37	155
Juli 9	39.716	92	50.40	154	50.002	50	73.92	140
19	39.624	154	51.94	132	49.952	84	75.32	122
29	39.470	210	53.26	106	49.868	116	76.54	102
Aug. 8	39.260	258	54.32	74	49.752	143	77.56	80
18	39.002	294	55.06	39	49.609	165	78.36	58
28	38.708	318	55.45	3	49.444	179	78.94	33
Sept. 7	38.390	326	55.48	35	49.265	185	79.27	8
17	38.064	319	55.13	73	49.080	182	79.35	18
27	37.745	295	54.40	108	48.898	170	79.17	44
Okt. 7	37.450	254	53.32	140	48.728	148	78.73	70
17	37.196	199	51.92	167	48.580	117	78.03	96
27	36.997	131	50.25	186	48.463	80	77.07	122
Nov. 6	36.866	54	48.39	199	48.383	36	75.85	147
16	36.812	29	46.40	203	48.347	12	74.38	169
26	36.841	114	44.37	199	48.359	61	72.69	187
Dez. 6	36.955	197	42.38	188	48.420	109	70.82	201
16	37.152	272	40.50	170	48.529	154	68.81	210
26	37.424	341	38.80	147	48.683	194	66.71	211
36	37.765		37.33		48.877		64.60	
Mittl. Ort	33.807		46.27		46.774		66.25	
sec δ, tg δ	1.784		−1.477		1.014		+0.167	
a, a'	+5.0		−5.7		+2.9		−5.6	
b, b'	+0.03		+0.96		0.00		+0.96	

Scheinbare Sternörter 1939

Tag	634) ε Herculis AR.		634) ε Herculis Dekl.		637) η Ophiuchi AR.		637) η Ophiuchi Dekl.	
1939	$16^h\ 57^m$		+31° 0′		$17^h\ 6^m$		−15° 38′	
	s		″		s		″	
Jan. 1	56.373	215	53.93	287	52.236	230	57.57	75
11	56.588	251	51.06	265	52.466	259	58.32	79
21	56.839	280	48.41	233	52.725	281	59.11	80
31	57.119	301	46.08	192	53.006	297	59.91	77
Febr. 10	57.420	313	44.16	144	53.303	305	60.68	69
20	57.733	318	42.72	91	53.608	307	61.37	58
März 2	58.051	316	41.81	35	53.915	305	61.95	45
12	58.367	306	41.46	22	54.220	298	62.40	30
22	58.673	293	41.68	76	54.518	288	62.70	15
Apr. 1	58.966	274	42.44	126	54.806	275	62.85	1
11	59.240	250	43.70	171	55.081	258	62.86	13
21	59.490	222	45.41	208	55.339	238	62.73	23
Mai 1	59.712	191	47.49	236	55.577	215	62.50	31
11	59.903	157	49.85	257	55.792	189	62.19	37
21	60.060	120	52.42	268	55.981	158	61.82	40
31	60.180	81	55.10	271	56.139	126	61.42	41
Juni 9*)	[7] 60.261	40	57.81	267	[9] 56.265	91	61.01	40
19	60.301	2	60.48	254	56.356	52	60.61	38
29	60.299	43	63.02	235	56.408	13	60.23	35
Juli 9	60.256	84	65.37	212	56.421	26	59.88	32
19	60.172	121	67.49	182	56.395	64	59.56	29
29	60.051	155	69.31	149	56.331	100	59.27	26
Aug. 8	59.896	185	70.80	114	56.231	131	59.01	25
18	59.711	208	71.94	76	56.100	156	58.76	23
28	59.503	222	72.70	35	55.944	173	58.53	22
Sept. 7	59.281	229	73.05	6	55.771	182	58.31	21
17	59.052	227	72.99	47	55.589	181	58.10	19
27	58.825	213	72.52	88	55.408	169	57.91	16
Okt. 7	58.612	191	71.64	129	55.239	148	57.75	12
17	58.421	158	70.35	168	55.091	116	57.63	7
27	58.263	118	68.67	204	54.975	77	57.56	2
Nov. 6	58.145	71	66.63	237	54.898	32	57.58	12
16	58.074	19	64.26	264	54.866	17	57.70	24
26	58.055	35	61.62	285	54.883	68	57.94	37
Dez. 6	58.090	88	58.77	299	54.951	118	58.31	49
16	58.178	140	55.78	303	55.069	164	58.80	62
26	58.318	187	52.75	298	55.233	205	59.42	72
36	58.505		49.77		55.438		60.14	
Mittl. Ort	57.303		54.13		52.633		64.01	
sec δ, tg δ	1.167		+0.601		1.039		−0.280	
a, a'	+2.3		−5.4		+3.4		−4.6	
b, b'	−0.01		+0.96		0.00		+0.97	

Tag	639) ζ Draconis AR.		639) ζ Draconis Dekl.		640) α Herculis AR.		640) α Herculis Dekl.	
1939	$17^h\ 8^m$		+65° 47′		$17^h\ 11^m$		+14° 27′	
	s		″		s		″	
Jan. 1	33.10	28	20.92	342	51.258	201	32.80	226
11	33.38	36	17.50	312	51.459	234	30.54	213
21	33.74	44	14.38	271	51.693	258	28.41	192
31	34.18	50	11.67	219	51.951	276	26.49	165
Febr. 10	34.68	55	9.48	159	52.227	288	24.84	129
20	35.23	57	7.89	95	52.515	292	23.55	89
März 2	35.80	58	6.94	27	52.807	291	22.66	46
12	36.38	57	6.67	41	53.098	286	22.20	1
22	36.95	54	7.08	107	53.384	276	22.19	42
Apr. 1	37.49	50	8.15	168	53.660	262	22.61	82
11	37.99	45	9.83	220	53.922	245	23.43	118
21	38.44	38	12.03	264	54.167	224	24.61	149
Mai 1	38.82	31	14.67	299	54.391	199	26.10	174
11	39.13	22	17.66	324	54.590	172	27.84	191
21	39.35	13	20.90	337	54.762	141	29.75	202
31	39.48	5	24.27	340	54.903	107	31.77	205
Juni 9*)	[9] 39.53	5	27.67	333	[10] 55.010	71	33.82	204
19	39.48	13	31.00	318	55.081	34	35.86	196
29	39.35	21	34.18	295	55.115	4	37.82	183
Juli 9	39.14	30	37.13	263	55.111	43	39.65	166
19	38.84	37	39.76	226	55.068	79	41.31	146
29	38.47	42	42.02	185	54.989	113	42.77	123
Aug. 8	38.05	48	43.87	138	54.876	142	44.00	98
18	37.57	52	45.25	89	54.734	167	44.98	70
28	37.05	55	46.14	38	54.567	183	45.68	43
Sept. 7	36.50	56	46.52	14	54.384	193	46.11	13
17	35.94	55	46.38	67	54.191	192	46.24	17
27	35.39	53	45.71	119	53.999	182	46.07	47
Okt. 7	34.86	50	44.52	169	53.817	163	45.60	77
17	34.36	44	42.83	217	53.654	134	44.83	107
27	33.92	37	40.66	260	53.520	98	43.76	136
Nov. 6	33.55	29	38.06	298	53.422	55	42.40	163
16	33.26	20	35.08	330	53.367	9	40.77	187
26	33.06	10	31.78	352	53.358	40	38.90	207
Dez. 6	32.96	0	28.26	365	53.398	88	36.83	222
16	32.96	11	24.61	367	53.486	135	34.61	231
26	33.07	22	20.94	356	53.621	176	32.30	232
36	33.29		17.38		53.797		29.98	
Mittl. Ort	36.36		22.78		51.894		30.21	
sec δ, tg δ	2.439		+2.224		1.033		+0.258	
a, a'	+0.2		−4.5		+2.7		−4.2	
b, b'	−0.03		+0.98		0.00		+0.98	

*) Bei Stern 640) lies Juni 10.

Tag	641) δ Herculis				643) π Herculis				644) ϑ Ophiuchi				645) β Arae			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$17^h\ 12^m$		$+24°\ 54'$		$17^h\ 12^m$		$+36°\ 52'$		$17^h\ 18^m$		$-24°\ 56'$		$17^h\ 20^m$		$-55°\ 28'$	
Jan. 1	^{s}30.704	199	$''$37.02	268	^{s}54.181	202	$''$36.86	305	^{s}15.199	234	$''$18.05	16	^{s}12.530	341	$''$18.32	152
11	30.903	235	34.34	251	54.383	244	33.81	284	15.433	266	18.21	26	12.871	395	16.80	128
21	31.138	263	31.83	224	54.627	278	30.97	251	15.699	292	18.47	33	13.266	438	15.52	101
31	31.401	283	29.59	188	54.905	304	28.46	208	15.991	309	18.80	38	13.704	469	14.51	72
Febr. 10	31.684	297	27.71	146	55.209	321	26.38	158	16.300	320	19.18	38	14.173	489	13.79	43
20	31.981	303	26.25	97	55.530	330	24.80	102	16.620	325	19.56	38	14.662	500	13.36	14
März 2	32.284	303	25.28	45	55.860	332	23.78	43	16.945	324	19.94	35	15.162	502	13.22	13
12	32.587	298	24.83	6	56.192	326	23.35	16	17.269	319	20.29	30	15.664	496	13.35	40
22	32.885	287	24.89	58	56.518	314	23.51	75	17.588	310	20.59	24	16.160	483	13.75	64
Apr. 1	33.172	272	25.47	106	56.832	295	24.26	130	17.898	298	20.83	19	16.643	463	14.39	88
11	33.444	252	26.53	148	57.127	272	25.56	177	18.196	282	21.02	14	17.106	437	15.27	109
21	33.696	229	28.01	184	57.399	244	27.33	218	18.478	262	21.16	11	17.543	404	16.36	128
Mai 1	33.925	202	29.85	213	57.643	211	29.51	251	18.740	239	21.27	9	17.947	365	17.64	146
11	34.127	171	31.98	234	57.854	174	32.02	275	18.979	212	21.36	9	18.312	320	19.10	160
21	34.298	137	34.32	247	58.028	135	34.77	289	19.191	182	21.45	9	18.632	267	20.70	172
31	34.435	100	36.79	251	58.163	92	37.66	293	19.373	146	21.54	10	18.899	210	22.42	179
Juni 10	$_{10}$34.535	62	39.30	248	$_{10}$58.255	48	40.59	290	$_{12}$19.519	108	21.64	12	$_{12}$19.109	148	24.21	183
19	34.597	22	41.78	239	58.303	2	43.49	279	19.627	68	21.76	14	19.257	82	26.04	182
29	34.619	18	44.17	224	58.305	43	46.28	261	19.695	25	21.90	15	19.339	14	27.86	176
Juli 9	34.601	58	46.41	202	58.262	87	48.89	236	19.720	18	22.05	15	19.353	54	29.62	163
19	34.543	97	48.43	177	58.175	128	51.25	206	19.702	59	22.20	13	19.299	119	31.25	147
29	34.446	132	50.20	149	58.047	167	53.31	172	19.643	99	22.33	11	19.180	180	32.72	125
Aug. 8	34.314	162	51.69	117	57.880	199	55.03	133	19.544	133	22.44	5	19.000	233	33.97	97
18	34.152	186	52.86	82	57.681	225	56.36	93	19.411	161	22.49	1	18.767	276	34.94	65
28	33.966	204	53.68	46	57.456	244	57.29	50	19.250	182	22.48	8	18.491	308	35.59	31
Sept. 7	33.762	213	54.14	10	57.212	253	57.79	6	19.068	193	22.40	16	18.183	324	35.90	6
17	33.549	212	54.24	28	56.959	252	57.85	40	18.875	194	22.24	24	17.859	325	35.84	44
27	33.337	203	53.96	66	56.707	242	57.45	84	18.681	184	22.00	32	17.534	309	35.40	80
Okt. 7	33.134	183	53.30	104	56.465	220	56.61	128	18.497	162	21.68	36	17.225	275	34.60	115
17	32.951	153	52.26	140	56.245	188	55.33	171	18.335	131	21.32	40	16.950	228	33.45	144
27	32.798	116	50.86	174	56.057	149	53.62	210	18.204	90	20.92	40	16.722	166	32.01	169
Nov. 6	32.682	72	49.12	206	55.908	102	51.52	245	18.114	43	20.52	37	16.556	94	30.32	186
16	32.610	24	47.06	234	55.806	48	49.07	276	18.071	8	20.15	31	16.462	14	28.46	197
26	32.586	27	44.72	256	55.758	8	46.31	300	18.079	62	19.84	23	16.448	68	26.49	200
Dez. 6	32.613	78	42.16	271	55.766	65	43.31	315	18.141	114	19.61	12	16.516	150	24.49	194
16	32.691	128	39.45	278	55.831	120	40.16	321	18.255	163	19.49	0	16.666	228	22.55	182
26	32.819	173	36.67	276	55.951	172	36.95	316	18.418	207	19.49	12	16.894	298	20.73	164
36	32.992		33.91		56.123		33.79		18.625		19.61		17.192		19.09	
Mittl. Ort	31.519		35.57		55.306		36.55		15.632		25.68		13.407		29.13	
sec δ, tg δ	1.103		+0.464		1.250		+0.750		1.103		−0.465		1.764		−1.454	
a, a′	+2.5		−4.1		+2.1		−4.1		+3.7		−3.6		+5.0		−3.5	
b, b′	−0.01		+0.98		−0.01		+0.98		+0.01		+0.98		+0.02		+0.98	

Scheinbare Sternörter 1939

Tag	648) δ Arae AR.	Δ	648) δ Arae Dekl.	Δ	651) α Arae AR.	Δ	651) α Arae Dekl.	Δ
1939	$17^h\ 25^m$		$-60°\ 37'$		$17^h\ 27^m$		$-49°\ 49'$	
Jan. 1	34.08	37	56.71	182	6.567	299	38.99	129
11	34.45	44	54.89	156	6.866	347	37.70	108
21	34.89	48	53.33	126	7.213	385	36.62	84
31	35.37	53	52.07	95	7.598	413	35.78	61
Febr. 10	35.90	56	51.12	63	8.011	432	35.17	38
20	36.46	57	50.49	31	8.443	442	34.79	14
März 2	37.03	57	50.18	2	8.885	445	34.65	8
12	37.60	56	50.20	33	9.330	441	34.73	30
22	38.16	56	50.53	62	9.771	431	35.03	49
Apr. 1	38.72	54	51.15	90	10.202	415	35.52	68
11	39.26	50	52.05	116	10.617	393	36.20	85
21	39.76	47	53.21	139	11.010	367	37.05	101
Mai 1	40.23	42	54.60	161	11.377	334	38.06	117
11	40.65	37	56.21	178	11.711	296	39.23	129
21	41.02	31	57.99	192	12.007	251	40.52	140
31	41.33	24	59.91	202	12.258	202	41.92	148
Juni 10	14 41.57	17	61.93	207	14 12.460	147	43.40	152
19	41.74	9	64.00	206	12.607	90	44.92	153
29	41.83	1	66.06	201	12.697	30	46.45	149
Juli 9	41.84	6	68.07	188	12.727	31	47.94	140
19	41.78	14	69.95	170	12.696	90	49.34	128
29	41.64	21	71.65	146	12.606	145	50.62	109
Aug. 8	41.43	27	73.11	116	12.461	194	51.71	87
18	41.16	32	74.27	82	12.267	234	52.58	60
28	40.84	37	75.09	43	12.033	263	53.18	30
Sept. 7	40.47	38	75.52	2	11.770	281	53.48	1
17	40.09	38	75.54	39	11.489	283	53.47	33
27	39.71	36	75.15	81	11.206	270	53.14	66
Okt. 7	39.35	33	74.34	120	10.936	243	52.48	95
17	39.02	28	73.14	154	10.693	202	51.53	122
27	38.74	21	71.60	184	10.491	149	50.31	143
Nov. 6	38.53	13	69.76	205	10.342	85	48.88	158
16	38.40	3	67.71	219	10.257	15	47.30	167
26	38.37	6	65.52	225	10.242	57	45.63	170
Dez. 6	38.43	15	63.27	222	10.299	129	43.93	164
16	38.58	24	61.05	211	10.428	199	42.29	154
26	38.82	32	58.94	193	10.627	260	40.75	139
36	39.14		57.01		10.887		39.36	
Mittl. Ort	35.21		67.70		7.315		49.03	
sec δ, tg δ	2.039		−1.777		1.550		−1.185	
a, a'	+5.4		−3.0		+4.6		−2.9	
b, b'	+0.02		+0.99		+0.01		+0.99	

Tag	653) β Draconis AR.	Δ	653) β Draconis Dekl.	Δ	652) λ Scorpii AR.	Δ	652) λ Scorpii Dekl.	Δ
1939	$17^h\ 29^m$		$+52°\ 20'$		$17^h\ 29^m$		$-37°\ 3'$	
Jan. 1	1.345	195	45.48	340	27.212	250	31.81	60
11	1.540	256	42.08	316	27.462	288	31.21	45
21	1.796	307	38.92	282	27.750	319	30.76	31
31	2.103	348	36.10	235	28.069	341	30.45	17
Febr. 10	2.451	380	33.75	181	28.410	355	30.28	5
20	2.831	400	31.94	121	28.765	363	30.23	6
März 2	3.231	409	30.73	55	29.128	365	30.29	16
12	3.640	407	30.18	11	29.493	362	30.45	24
22	4.047	396	30.29	76	29.855	354	30.69	31
Apr. 1	4.443	374	31.05	136	30.209	342	31.00	38
11	4.817	344	32.41	191	30.551	326	31.38	45
21	5.161	307	34.32	239	30.877	305	31.83	51
Mai 1	5.468	263	36.71	276	31.182	279	32.34	59
11	5.731	213	39.47	304	31.461	250	32.93	65
21	5.944	159	42.51	323	31.711	215	33.58	71
31	6.103	101	45.74	332	31.926	175	34.29	77
Juni 10	14 6.204	42	49.06	330	15 32.101	132	35.06	80
19	6.246	18	52.36	319	32.233	86	35.86	82
29	6.228	78	55.55	301	32.319	37	36.68	82
Juli 9	6.150	136	58.56	276	32.356	13	37.50	78
19	6.014	189	61.32	243	32.343	61	38.28	72
29	5.825	239	63.75	206	32.282	107	39.00	61
Aug. 8	5.586	281	65.81	164	32.175	147	39.61	49
18	5.305	315	67.45	118	32.028	182	40.10	33
28	4.990	340	68.63	70	31.846	206	40.43	14
Sept. 7	4.650	354	69.33	20	31.640	221	40.57	5
17	4.296	356	69.53	30	31.419	224	40.52	26
27	3.940	346	69.23	82	31.195	215	40.26	45
Okt. 7	3.594	325	68.41	132	30.980	192	39.81	63
17	3.269	290	67.09	181	30.788	159	39.18	79
27	2.979	244	65.28	225	30.629	116	38.39	90
Nov. 6	2.735	189	63.03	266	30.513	63	37.49	97
16	2.546	126	60.37	301	30.450	6	36.52	99
26	2.420	58	57.36	329	30.444	53	35.53	97
Dez. 6	2.362	14	54.07	346	30.497	113	34.56	90
16	2.376	85	50.61	354	30.610	168	33.66	79
26	2.461	154	47.07	351	30.778	219	32.87	67
36	2.615		43.56		30.997		32.20	
Mittl. Ort	3.210		44.79		27.757		40.58	
sec δ, tg δ	1.637		+1.296		1.253		−0.755	
a, a'	+1.4		−2.7		+4.1		−2.7	
b, b'	−0.01		+0.99		+0.01		+0.99	

Tag	656) α Ophiuchi AR.		656) α Ophiuchi Dekl.		654) ϑ Scorpii AR.		654) ϑ Scorpii Dekl.		658) ξ Serpentis AR.		658) ξ Serpentis Dekl.		664) ω Draconis AR.		664) ω Draconis Dekl.	
1939	$17^h 32^m$		+12° 36′		$17^h 32^m$		−42° 57′		$17^h 34^m$		−15° 21′		$17^h 37^m$		+68° 46′	
	s		″		s		″		s		″		s		″	
Jan. 1	5.461	184	14.26	215	55.260	264	31.39	96	5.045	204	36.40	64	14.49	23	71.89	349
11	5.645	217	12.11	206	55.524	306	30.43	79	5.249	237	37.04	68	14.72	33	68.40	326
21	5.862	244	10.05	187	55.830	340	29.64	61	5.486	263	37.72	67	15.05	42	65.14	291
31	6.106	264	8.18	162	56.170	366	29.03	42	5.749	281	38.39	63	15.47	51	62.23	245
Febr. 10	6.370	279	6.56	129	56.536	383	28.61	26	6.030	294	39.02	55	15.98	57	59.78	189
20	6.649	286	5.27	91	56.919	392	28.35	9	6.324	301	39.57	44	16.55	62	57.89	128
März 2	6.935	289	4.36	50	57.311	395	28.26	7	6.625	303	40.01	30	17.17	64	56.61	61
12	7.224	287	3.86	8	57.706	393	28.33	21	6.928	300	40.31	15	17.81	65	56.00	7
22	7.511	281	3.78	34	58.099	385	28.54	34	7.228	295	40.46	0	18.46	63	56.07	73
Apr. 1	7.792	270	4.12	74	58.484	372	28.88	47	7.523	286	40.46	14	19.09	59	56.80	137
11	8.062	256	4.86	110	58.856	355	29.35	59	7.809	272	40.32	27	19.68	54	58.17	194
21	8.318	237	5.96	141	59.211	333	29.94	70	8.081	256	40.05	37	20.22	48	60.11	243
Mai 1	8.555	216	7.37	166	59.544	305	30.64	82	8.337	236	39.68	45	20.70	40	62.54	284
11	8.771	190	9.03	184	59.849	272	31.46	92	8.573	211	39.23	50	21.10	30	65.38	313
21	8.961	160	10.87	195	60.121	235	32.38	101	8.784	183	38.73	52	21.40	21	68.51	334
31	9.121	128	12.82	201	60.356	191	33.39	108	8.967	151	38.21	51	21.61	11	71.85	343
Juni 10	9.249	92	14.83	200	60.547	144	34.47	113	9.118	116	37.70	48	21.72	1	75.28	344
19	[15] 9.341	54	16.83	194	[15] 60.691	94	35.60	115	[16] 9.234	77	37.22	45	[16] 21.73	9	78.72	334
29	9.395	15	18.77	182	60.785	40	36.75	113	9.311	36	36.77	40	21.64	20	82.06	316
Juli 9	9.410	25	20.59	167	60.825	15	37.88	109	9.347	4	36.37	35	21.44	29	85.22	290
19	9.385	62	22.26	148	60.810	67	38.97	99	9.343	45	36.02	29	21.15	38	88.12	258
29	9.323	98	23.74	126	60.743	117	39.96	86	9.298	84	35.73	24	20.77	46	90.70	220
Aug. 8	9.225	131	25.00	103	60.626	161	40.82	70	9.214	117	35.49	21	20.31	52	92.90	177
18	9.094	158	26.03	77	60.465	199	41.52	49	9.097	147	35.28	18	19.79	58	94.67	131
28	8.936	177	26.80	50	60.266	227	42.01	26	8.950	169	35.10	15	19.21	62	95.98	81
Sept. 7	8.759	189	27.30	23	60.039	243	42.27	1	8.781	181	34.95	13	18.59	64	96.79	29
17	8.570	193	27.53	6	59.796	246	42.28	26	8.600	185	34.82	11	17.95	64	97.08	24
27	8.377	185	27.47	35	59.550	237	42.02	51	8.415	178	34.71	9	17.31	64	96.84	76
Okt. 7	8.192	169	27.12	63	59.313	214	41.51	75	8.237	161	34.62	6	16.67	60	96.08	129
17	8.023	144	26.49	92	59.099	179	40.76	96	8.076	134	34.56	1	16.07	55	94.79	179
27	7.879	110	25.57	121	58.920	132	39.80	113	7.942	98	34.55	6	15.52	49	93.00	226
Nov. 6	7.769	70	24.36	147	58.788	76	38.67	124	7.844	55	34.61	13	15.03	40	90.74	269
16	7.699	25	22.89	171	58.712	15	37.43	130	7.789	8	34.74	23	14.63	31	88.05	305
26	7.674	23	21.18	191	58.697	50	36.13	131	7.781	41	34.97	34	14.32	20	85.00	334
Dez. 6	7.697	70	19.27	207	58.747	113	34.82	126	7.822	90	35.31	45	14.12	9	81.66	354
16	7.767	116	17.20	217	58.860	175	33.56	117	7.912	137	35.76	54	14.03	3	78.12	362
26	7.883	159	15.03	220	59.035	229	32.39	104	8.049	179	36.30	63	14.06	15	74.50	359
36	8.042		12.83		59.264		31.35		8.228		36.93		14.21		70.91	
Mittl. Ort	6.103		10.53		55.895		40.61		5.510		42.93		18.34		70.81	
sec δ, tg δ	1.025		+0.224		1.367		−0.931		1.037		−0.275		2.764		+2.576	
a, a′	+2.8		−2.4		+4.3		−2.4		+3.4		−2.3		−0.4		−2.0	
b, b′	0.00		+0.99		+0.01		+0.99		0.00		+0.99		−0.02		+1.00	

Scheinbare Sternörter 1939

Tag		663) ι Herculis				661) η Pavonis				665) β Ophiuchi				670) ψ Draconis			
		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939		17h 37m		+46° 2′		17h 39m		−64° 41′		17h 40m		+4° 35′		17h 42m		+72° 10′	
Jan.	1	43.016	177	17.67	330	42.92	38	39.83	212	26.918	180	32.97	173	56.40	22	47.21	350
	11	43.193	230	14.37	310	43.30	47	37.71	187	27.098	213	31.24	167	56.62	35	43.71	329
	21	43.423	275	11.27	278	43.77	53	35.84	159	27.311	240	29.57	154	56.97	47	40.42	295
	31	43.698	312	8.49	236	44.30	58	34.25	127	27.551	260	28.03	134	57.44	58	37.47	250
Febr.	10	44.010	339	6.13	185	44.88	61	32.98	92	27.811	273	26.69	108	58.02	65	34.97	196
	20	44.349	358	4.28	127	45.49	64	32.06	59	28.084	283	25.61	78	58.67	71	33.01	135
März	2	44.707	367	3.01	64	46.13	65	31.47	23	28.367	286	24.83	45	59.38	75	31.66	69
	12	45.074	367	2.37	0	46.78	65	31.24	12	28.653	285	24.38	10	60.13	75	30.97	1
	22	45.441	359	2.37	63	47.43	64	31.36	44	28.938	280	24.28	26	60.88	74	30.96	65
Apr.	1	45.800	343	3.00	122	48.07	61	31.80	76	29.218	272	24.54	59	61.62	70	31.61	129
	11	46.143	320	4.22	177	48.68	59	32.56	106	29.490	259	25.13	89	62.32	64	32.90	186
	21	46.463	289	5.99	224	49.27	55	33.62	134	29.749	243	26.02	115	62.96	56	34.76	236
Mai	1	46.752	254	8.23	263	49.82	50	34.96	160	29.992	223	27.17	135	63.52	46	37.12	277
	11	47.006	212	10.86	291	50.32	43	36.56	181	30.215	199	28.52	150	63.98	36	39.89	308
	21	47.218	166	13.77	310	50.75	37	38.37	199	30.414	172	30.02	161	64.34	25	42.97	330
	31	47.384	117	16.87	321	51.12	30	40.36	213	30.586	140	31.63	164	64.59	13	46.27	341
Juni	10	47.501	65	20.08	321	51.42	21	42.49	221	30.726	106	33.27	163	[18] 64.72	0	49.68	341
	19	[17] 47.566	11	23.29	312	[17] 51.63	13	44.70	224	[17] 30.832	68	34.90	157	64.72	12	53.09	334
	29	47.577	42	26.41	297	51.76	3	46.94	220	30.900	30	36.47	148	64.60	24	56.43	317
Juli	9	47.535	95	29.38	273	51.79	5	49.14	210	30.930	10	37.95	136	64.36	35	59.60	292
	19	47.440	144	32.11	243	51.74	15	51.24	193	30.920	49	39.31	121	64.01	45	62.52	261
	29	47.296	190	34.54	208	51.59	23	53.17	169	30.871	86	40.52	103	63.56	54	65.13	224
Aug.	8	47.106	230	36.62	169	51.36	30	54.86	140	30.785	118	41.55	84	63.02	63	67.37	181
	18	46.876	263	38.31	125	51.06	37	56.26	105	30.667	147	42.39	65	62.39	69	69.18	136
	28	46.613	288	39.56	80	50.69	41	57.31	65	30.520	168	43.04	45	61.70	73	70.54	87
Sept.	7	46.325	303	40.36	32	50.28	44	57.96	21	30.352	181	43.49	24	60.97	77	71.41	36
	17	46.022	306	40.68	17	49.84	44	58.17	24	30.171	185	43.73	2	60.20	78	71.77	17
	27	45.716	300	40.51	66	49.40	44	57.93	69	29.986	180	43.75	19	59.42	76	71.60	70
Okt.	7	45.416	281	39.85	115	48.96	40	57.24	112	29.806	164	43.56	42	58.66	73	70.90	122
	17	45.135	251	38.70	163	48.56	34	56.12	151	29.642	140	43.14	64	57.93	68	69.68	172
	27	44.884	212	37.07	207	48.22	27	54.61	186	29.502	108	42.50	86	57.25	60	67.96	220
Nov.	6	44.672	162	35.00	248	47.95	18	52.75	213	29.394	69	41.64	107	56.65	51	65.76	264
	16	44.510	107	32.52	283	47.77	8	50.62	232	29.325	24	40.57	128	56.14	40	63.12	300
	26	44.403	46	29.69	311	47.69	2	48.30	242	29.301	22	39.29	147	55.74	27	60.12	331
Dez.	6	44.357	17	26.58	331	47.71	13	45.88	244	29.323	69	37.82	161	55.47	14	56.81	351
	16	44.374	80	23.27	340	47.84	23	43.44	237	29.392	114	36.21	170	55.33	0	53.30	361
	26	44.454	141	19.87	340	48.07	33	41.07	223	29.506	155	34.51	176	55.33	14	49.69	360
	36	44.595		16.47		48.40		38.84		29.661		32.75		55.47		46.09	
Mittl. Ort		44.524		15.91		44.41		50.38		27.487		28.20		61.10		45.55	
sec δ, tg δ		1.441		+1.037		2.340		−2.115		1.003		+0.080		3.268		+3.111	
a, a'		+1.7		−1.9		+5.9		−1.8		+3.0		−1.7		−1.1		−1.5	
b, b'		−0.01		+1.00		+0.01		+1.00		0.00		+1.00		−0.02		+1.00	

Obere Kulmination Greenwich

Tag	667) μ Herculis[1]) AR.		Dekl.		675) 35 Draconis AR.		Dekl.		671) ξ Draconis AR.		Dekl.		672) ϑ Herculis AR.		Dekl.	
1939	17h 44m		+27° 45′		17h 52m		+76° 58′		17h 52m		+56° 52′		17h 54m		+37° 15′	
	s		"		s		"		s		"		s		"	
Jan. 1	3.278	168	21.52	279	3.92	22	22.51	347	26.221	163	56.70	348	8.463	154	30.53	309
11	3.446	207	18.73	265	4.14	41	19.04	327	26.384	234	53.22	330	8.617	201	27.44	294
21	3.653	240	16.08	240	4.55	57	15.77	296	26.618	297	49.92	298	8.818	241	24.50	267
31	3.893	266	13.68	206	5.12	72	12.81	254	26.915	351	46.94	256	9.059	273	21.83	231
Febr. 10	4.159	286	11.62	164	5.84	84	10.27	202	27.266	393	44.38	205	9.332	298	19.52	185
20	4.445	298	9.98	115	6.68	93	8.25	143	27.659	424	42.33	145	9.630	316	17.67	132
März 2	4.743	305	8.83	64	7.61	98	6.82	78	28.083	442	40.88	81	9.946	326	16.35	76
12	5.048	305	8.19	9	8.59	100	6.04	12	28.525	449	40.07	14	10.272	330	15.59	15
22	5.353	299	8.10	45	9.59	99	5.92	55	28.974	443	39.93	52	10.602	327	15.44	45
Apr. 1	5.652	289	8.55	96	10.58	94	6.47	118	29.417	426	40.45	116	10.929	316	15.89	101
11	5.941	274	9.51	143	11.52	86	7.65	176	29.843	398	41.61	174	11.245	300	16.90	153
21	6.215	253	10.94	182	12.38	76	9.41	227	30.241	360	43.35	225	11.545	278	18.43	200
Mai 1	6.468	228	12.76	216	13.14	64	11.68	269	30.601	314	45.60	268	11.823	251	20.43	237
11	6.696	199	14.92	241	13.78	49	14.37	302	30.915	261	48.28	301	12.074	218	22.80	267
21	6.895	166	17.33	258	14.27	33	17.39	325	31.176	202	51.29	325	12.292	180	25.47	288
31	7.061	129	19.91	266	14.60	17	20.64	338	31.378	138	54.54	337	12.472	139	28.35	300
Juni 10	7.190	89	22.57	267	14.77	0	24.02	341	31.516	71	57.91	341	12.611	94	31.35	303
19*)	[18] 7.279	47	25.24	261	[20] 14.77	16	27.43	334	[20] 31.587	3	61.32	336	[21] 12.705	47	34.38	297
29	7.326	5	27.85	247	14.61	33	30.77	320	31.590	65	64.68	321	12.752	0	37.35	285
Juli 9	7.331	39	30.32	227	14.28	48	33.97	298	31.525	132	67.89	298	12.752	48	40.20	264
19	7.292	81	32.59	203	13.80	62	36.95	268	31.393	196	70.87	270	12.704	95	42.84	239
29	7.211	120	34.62	175	13.18	74	39.63	233	31.197	253	73.57	234	12.609	138	45.23	208
Aug. 8	7.091	155	36.37	142	12.44	86	41.96	193	30.944	304	75.91	194	12.471	177	47.31	172
18	6.936	184	37.79	108	11.58	94	43.89	148	30.640	346	77.85	150	12.294	210	49.03	134
28	6.752	206	38.87	70	10.64	101	45.37	100	30.294	379	79.35	102	12.084	235	50.37	92
Sept. 7	6.546	220	39.57	32	9.63	106	46.37	50	29.915	400	80.37	52	11.849	252	51.29	49
17	6.326	225	39.89	7	8.57	108	46.87	1	29.515	408	80.89	0	11.597	259	51.78	4
27	6.101	220	39.82	48	7.49	106	46.86	54	29.107	404	80.89	52	11.338	256	51.82	42
Okt. 7	5.881	204	39.34	88	6.43	102	46.32	105	28.703	385	80.37	104	11.082	242	51.40	87
17	5.677	180	38.46	127	5.41	96	45.27	157	28.318	354	79.33	155	10.840	217	50.53	132
27	5.497	146	37.19	164	4.45	87	43.70	204	27.964	310	77.78	203	10.623	183	49.21	175
Nov. 6	5.351	105	35.55	199	3.58	75	41.66	248	27.654	255	75.75	248	10.440	141	47.46	215
16	5.246	58	33.56	229	2.83	61	39.18	287	27.399	189	73.27	287	10.299	93	45.31	249
26	5.188	9	31.27	255	2.22	45	36.31	319	27.210	117	70.40	319	10.206	40	42.82	279
Dez. 6	5.179	42	28.72	274	1.77	27	33.12	341	27.093	41	67.21	342	10.166	15	40.03	301
16	5.221	92	25.98	284	1.50	8	29.71	353	27.052	38	63.79	354	10.181	70	37.02	313
26	5.313	140	23.14	286	1.42	11	26.18	354	27.090	117	60.25	356	10.251	121	33.89	315
36	5.453		20.28		1.53		22.64		27.207		56.69		10.372		30.74	
Mittl. Ort	4.184		18.38		10.59		19.84		28.425		53.92		9.625		27.07	
sec δ, tg δ	1.130		+0.526		4.436		+4.322		1.830		+1.533		1.256		+0.761	
a, *a′*	+2.4		−1.4		−2.7		−0.7		+1.0		−0.7		+2.1		−0.5	
b, *b′*	0.00		+1.00		−0.01		+1.00		0.00		+1.00		0.00		+1.00	

[1]) Die jährliche Parallaxe (0″.111) ist bereits berücksichtigt.

*) Bei Stern 675), 671) und 672) lies Juni 20.

Tag	676) γ Draconis AR.		676) γ Draconis Dekl.		673) ν Ophiuchi AR.		673) ν Ophiuchi Dekl.		677) 67 Ophiuchi AR.		677) 67 Ophiuchi Dekl.		679) γ Sagittarii AR.		679) γ Sagittarii Dekl.	
1939	$17^h\ 55^m$		$+51°\ 29'$		$17^h\ 55^m$		$-9°\ 45'$		$17^h\ 57^m$		$+2°\ 55'$		$18^h\ 1^m$		$-30°\ 25'$	
Jan. 1	9.536	156	46.21	342	39.526	178	57.77	89	34.783	165	63.92	161	52.702	200	29.10	39
11	9.692	216	42.79	324	39.704	212	58.66	88	34.948	200	62.31	155	52.902	238	28.71	31
21	9.908	271	39.55	294	39.916	239	59.54	85	35.148	228	60.76	144	53.140	270	28.40	24
31	10.179	317	36.61	254	40.155	261	60.39	75	35.376	249	59.32	126	53.410	295	28.16	18
Febr. 10	10.496	353	34.07	204	40.416	276	61.14	63	35.625	265	58.06	102	53.705	313	27.98	13
20	10.849	379	32.03	145	40.692	286	61.77	45	35.890	277	57.04	74	54.018	326	27.85	10
März 2	11.228	396	30.58	83	40.978	292	62.22	26	36.167	283	56.30	43	54.344	333	27.75	9
12	11.624	402	29.75	18	41.270	293	62.48	6	36.450	285	55.87	9	54.677	336	27.66	7
22	12.026	397	29.57	48	41.563	291	62.54	16	36.735	283	55.78	25	55.013	335	27.59	6
Apr. 1	12.423	383	30.05	111	41.854	285	62.38	36	37.018	277	56.03	57	55.348	328	27.53	5
11	12.806	360	31.16	168	42.139	275	62.02	53	37.295	268	56.60	85	55.676	319	27.48	3
21	13.166	330	32.84	218	42.414	261	61.49	67	37.563	253	57.45	111	55.995	304	27.45	0
Mai 1	13.496	291	35.02	261	42.675	244	60.82	79	37.816	236	58.56	131	56.299	285	27.45	5
11	13.787	246	37.63	294	42.919	222	60.03	87	38.052	213	59.87	146	56.584	261	27.50	10
21	14.033	195	40.57	317	43.141	196	59.16	90	38.265	187	61.33	155	56.845	232	27.60	17
31	14.228	140	43.74	330	43.337	165	58.26	90	38.452	157	62.88	160	57.077	197	27.77	24
Juni 10	14.368	82	47.04	335	43.502	130	57.36	88	38.609	122	64.48	159	57.274	159	28.01	32
20	[21] 14.450	22	50.39	329	[21] 43.632	93	56.48	83	[22] 38.731	85	66.07	153	[23] 57.433	115	28.33	38
29	14.472	38	53.68	315	43.725	53	55.65	75	38.816	46	67.60	144	57.548	69	28.71	42
Juli 9	14.434	98	56.83	294	43.778	12	54.90	66	38.862	6	69.04	133	57.617	23	29.13	46
19	14.336	155	59.77	267	43.790	29	54.24	57	38.868	34	70.37	118	57.640	26	29.59	47
29	14.181	207	62.44	232	43.761	69	53.67	48	38.834	73	71.55	101	57.614	72	30.06	46
Aug. 8	13.974	253	64.76	193	43.692	105	53.19	38	38.761	108	72.56	83	57.542	113	30.52	41
18	13.721	293	66.69	150	43.587	135	52.81	30	38.653	139	73.39	65	57.429	150	30.93	33
28	13.428	322	68.19	103	43.452	160	52.51	21	38.514	162	74.04	46	57.279	180	31.26	24
Sept. 7	13.106	343	69.22	54	43.292	177	52.30	13	38.352	177	74.50	26	57.099	199	31.50	12
17	12.763	351	69.76	4	43.115	183	52.17	6	38.175	185	74.76	7	56.900	208	31.62	1
27	12.412	347	69.80	47	42.932	179	52.11	2	37.990	182	74.83	14	56.692	205	31.61	14
Okt. 7	12.065	331	69.33	98	42.753	167	52.13	11	37.808	169	74.69	35	56.487	191	31.47	28
17	11.734	303	68.35	148	42.586	143	52.24	20	37.639	148	74.34	55	56.296	166	31.19	39
27	11.431	263	66.87	196	42.443	112	52.44	29	37.491	117	73.79	75	56.130	130	30.80	49
Nov. 6	11.168	214	64.91	239	42.331	73	52.73	40	37.374	79	73.04	96	56.000	86	30.31	55
16	10.954	156	62.52	279	42.258	28	53.13	52	37.295	38	72.08	116	55.914	36	29.76	58
26	10.798	91	59.73	310	42.230	18	53.65	63	37.257	8	70.92	132	55.878	16	29.18	57
Dez. 6	10.707	24	56.63	333	42.248	65	54.28	74	37.265	54	69.60	147	55.894	70	28.61	54
16	10.683	46	53.30	347	42.313	111	55.02	82	37.319	99	68.13	157	55.964	122	28.07	49
26	10.729	114	49.83	349	42.424	152	55.84	89	37.418	139	66.56	162	56.086	171	27.58	42
36	10.843		46.34		42.576		56.73		37.557		64.94		56.257		27.16	
Mittl. Ort	11.341		43.08		40.039		63.94		35.357		58.53		53.278		36.56	
sec δ, tg δ	1.606		+1.257		1.015		−0.172		1.001		+0.051		1.160		−0.587	
a, *a′*	+1.4		−0.4		+3.3		−0.4		+3.0		−0.2		+3.9		+0.2	
b, *b′*	0.00		+1.00		0.00		+1.00		0.00		+1.00		0.00		+1.00	

Obere Kulmination Greenwich

Tag		680) 72 Ophiuchi AR.		680) Dekl.		681) o Herculis AR.		681) Dekl.		682) μ Sagittarii AR.		682) Dekl.		688) η Serpentis AR.		688) Dekl.	
1939		$18^h 4^m$		$+9° 33'$		$18^h 5^m$		$+28° 45'$		$18^h 10^m$		$-21° 4'$		$18^h 18^m$		$-2° 54'$	
Jan.	1	26.785	155	18.55	194	8.818	145	14.44	280	6.334	177	29.12	14	8.604	150	52.43	123
	11	26.940	190	16.61	186	8.963	186	11.64	268	6.511	214	29.26	18	8.754	185	53.66	121
	21	27.130	219	14.75	172	9.149	221	8.96	246	6.725	243	29.44	19	8.939	213	54.87	112
	31	27.349	243	13.03	151	9.370	251	6.50	215	6.968	267	29.63	18	9.152	238	55.99	99
Febr.	10	27.592	261	11.52	123	9.621	274	4.35	174	7.235	285	29.81	14	9.390	256	56.98	80
	20	27.853	274	10.29	88	9.895	291	2.61	127	7.520	299	29.95	8	9.646	270	57.78	58
März	2	28.127	281	9.41	51	10.186	302	1.34	75	7.819	306	30.03	0	9.916	279	58.36	32
	12	28.408	285	8.90	12	10.488	306	0.59	21	8.125	310	30.03	9	10.195	284	58.68	4
	22	28.693	284	8.78	28	10.794	306	0.38	34	8.435	310	29.94	18	10.479	285	58.72	24
Apr.	1	28.977	279	9.06	66	11.100	299	0.72	86	8.745	306	29.76	26	10.764	283	58.48	50
	11	29.256	270	9.72	101	11.399	287	1.58	135	9.051	298	29.50	33	11.047	276	57.98	75
	21	29.526	256	10.73	131	11.686	270	2.93	178	9.349	286	29.17	38	11.323	266	57.23	95
Mai	1	29.782	238	12.04	157	11.956	247	4.71	214	9.635	269	28.79	40	11.589	251	56.28	111
	11	30.020	216	13.61	175	12.203	221	6.85	241	9.904	248	28.39	39	11.840	231	55.17	124
	21	30.236	189	15.36	187	12.424	188	9.26	262	10.152	222	28.00	38	12.071	206	53.93	131
	31	30.425	158	17.23	194	12.612	152	11.88	274	10.374	191	27.62	33	12.277	178	52.62	133
Juni	10	30.583	124	19.17	195	12.764	112	14.62	277	10.565	155	27.29	27	12.455	144	51.29	131
	20	30.707	87	21.12	190	12.876	70	17.39	273	10.720	115	27.02	20	12.599	107	49.98	126
	29	[23] 30.794	46	23.02	180	[24] 12.946	26	20.12	262	[25] 10.835	73	26.82	13	[27] 12.706	68	48.72	117
Juli	9	30.840	5	24.82	166	12.972	19	22.74	245	10.908	29	26.69	7	12.774	26	47.55	106
	19	30.845	35	26.48	150	12.953	63	25.19	222	10.937	16	26.62	1	12.800	16	46.49	93
	29	30.810	74	27.98	130	12.890	105	27.41	195	10.921	59	26.61	4	12.784	56	45.56	79
Aug.	8	30.736	110	29.28	108	12.785	143	29.36	164	10.862	99	26.65	6	12.728	93	44.77	64
	18	30.626	141	30.36	85	12.642	176	31.00	129	10.763	134	26.71	7	12.635	126	44.13	49
	28	30.485	165	31.21	60	12.466	201	32.29	92	10.629	162	26.78	6	12.509	154	43.64	35
Sept.	7	30.320	182	31.81	35	12.265	219	33.21	54	10.467	182	26.84	3	12.355	172	43.29	20
	17	30.138	190	32.16	10	12.046	227	33.75	14	10.285	191	26.87	0	12.183	182	43.09	6
	27	29.948	189	32.26	17	11.819	226	33.89	27	10.094	190	26.87	3	12.001	183	43.03	9
Okt.	7	29.759	177	32.09	43	11.593	214	33.62	68	9.904	179	26.84	8	11.818	173	43.12	24
	17	29.582	156	31.66	69	11.379	193	32.94	108	9.725	156	26.76	10	11.645	155	43.36	39
	27	29.426	127	30.97	95	11.186	163	31.86	147	9.569	125	26.66	11	11.490	126	43.75	54
Nov.	6	29.299	91	30.02	121	11.023	124	30.39	184	9.444	85	26.55	11	11.364	91	44.29	69
	16	29.208	49	28.81	143	10.899	81	28.55	217	9.359	41	26.44	8	11.273	51	44.98	84
	26	29.159	4	27.38	163	10.818	33	26.38	245	9.318	8	26.36	4	11.222	7	45.82	98
Dez.	6	29.155	41	25.75	180	10.785	18	23.93	266	9.326	58	26.32	1	11.215	38	46.80	110
	16	29.196	87	23.95	191	10.803	68	21.27	280	9.384	105	26.33	8	11.253	83	47.90	119
	26	29.283	129	22.04	196	10.871	115	18.47	285	9.489	150	26.41	13	11.336	124	49.09	124
	36	29.412		20.08		10.986		15.62		9.639		26.54		11.460		50.33	
Mittl. Ort		27.422		13.29		9.751		9.90		6.874		35.93		9.161		58.53	
sec δ, tg δ		1.014		+0.168		1.141		+0.549		1.072		−0.385		1.001		−0.051	
a, a'		+2.8		+0.4		+2.3		+0.5		+3.6		+0.9		+3.1		+1.6	
b, b'		0.00		+1.00		0.00		+1.00		0.00		+1.00		0.00		+1.00	

Scheinbare Sternörter 1939

Tag	689) ε Sagittarii AR.		689) ε Sagittarii Dekl.		690) 109 Herculis AR.		690) 109 Herculis Dekl.		695) χ Draconis[1]) AR.		695) χ Draconis[1]) Dekl.		691) α Telescopii AR.		691) α Telescopii Dekl.	
1939	$18^h\ 20^m$		−34° 24′		$18^h\ 21^m$		+21° 44′		$18^h\ 22^m$		+72° 42′		$18^h\ 22^m$		−45° 59′	
Jan. 1	6.720	187	48.14	72	5.088	132	31.35	249	4.77	11	30.34	353	26.163	209	67.03	143
11	6.907	228	47.42	65	5.220	171	28.86	241	4.88	25	26.81	342	26.372	260	65.60	132
21	7.135	264	46.77	58	5.391	205	26.45	224	5.13	38	23.39	318	26.632	303	64.28	119
31	7.399	292	46.19	51	5.596	233	24.21	197	5.51	50	20.21	282	26.935	337	63.09	105
Febr. 10	7.691	314	45.68	44	5.829	256	22.24	162	6.01	60	17.39	235	27.272	365	62.04	90
20	8.005	330	45.24	38	6.085	274	20.62	121	6.61	68	15.04	179	27.637	386	61.14	74
März 2	8.335	341	44.86	33	6.359	286	19.41	74	7.29	74	13.25	117	28.023	400	60.40	57
12	8.676	348	44.53	27	6.645	293	18.67	25	8.03	76	12.08	51	28.423	407	59.83	41
22	9.024	350	44.26	23	6.938	294	18.42	24	8.79	78	11.57	16	28.830	410	59.42	24
Apr. 1	9.374	346	44.03	17	7.232	292	18.66	73	9.57	76	11.73	81	29.240	407	59.18	7
11	9.720	339	43.86	11	7.524	284	19.39	117	10.33	71	12.54	142	29.647	398	59.11	11
21	10.059	327	43.75	3	7.808	271	20.56	157	11.04	66	13.96	199	30.045	383	59.22	29
Mai 1	10.386	310	43.72	6	8.079	253	22.13	191	11.70	57	15.95	247	30.428	362	59.51	47
11	10.696	287	43.78	16	8.332	230	24.04	218	12.27	47	18.42	285	30.790	335	59.98	64
21	10.983	257	43.94	26	8.562	202	26.22	236	12.74	36	21.27	316	31.125	300	60.62	81
31	11.240	223	44.20	36	8.764	169	28.58	248	13.10	25	24.43	335	31.425	259	61.43	97
Juni 10	11.463	184	44.56	47	8.933	133	31.06	252	13.35	12	27.78	345	31.684	211	62.40	110
20	11.647	139	45.03	56	9.066	93	33.58	249	13.47	1	31.23	346	31.895	159	63.50	120
29	[27] 11.786	90	45.59	63	[28] 9.159	50	36.07	241	[28] 13.46	13	34.69	338	[28] 32.054	102	64.70	127
Juli 9	11.876	41	46.22	68	9.209	7	38.48	225	13.33	26	38.07	321	32.156	43	65.97	131
19	11.917	10	46.90	70	9.216	36	40.73	205	13.07	37	41.28	297	32.199	17	67.28	128
29	11.907	59	47.60	68	9.180	78	42.78	182	12.70	47	44.25	267	32.182	75	68.56	122
Aug. 8	11.848	106	48.28	64	9.102	117	44.60	155	12.23	57	46.92	230	32.107	129	69.78	110
18	11.742	147	48.92	55	8.985	150	46.15	124	11.66	66	49.22	188	31.978	178	70.88	94
28	11.595	179	49.47	43	8.835	177	47.39	92	11.00	72	51.10	143	31.800	217	71.82	73
Sept. 7	11.416	204	49.90	29	8.658	197	48.31	58	10.28	76	52.53	94	31.583	245	72.55	48
17	11.212	217	50.19	12	8.461	207	48.89	23	9.52	79	53.47	43	31.338	262	73.03	21
27	10.995	217	50.31	5	8.254	208	49.12	13	8.73	80	53.90	10	31.076	263	73.24	9
Okt. 7	10.778	207	50.26	23	8.046	200	48.99	50	7.93	78	53.80	64	30.813	252	73.15	38
17	10.571	184	50.03	39	7.846	182	48.49	85	7.15	74	53.16	117	30.561	225	72.77	66
27	10.387	150	49.64	55	7.664	155	47.64	120	6.41	69	51.99	168	30.336	187	72.11	92
Nov. 6	10.237	107	49.09	66	7.509	119	46.44	154	5.72	61	50.31	217	30.149	137	71.19	113
16	10.130	57	48.43	74	7.390	79	44.90	184	5.11	50	48.14	261	30.012	79	70.06	130
26	10.073	4	47.69	79	7.311	35	43.06	211	4.61	39	45.53	298	29.933	17	68.76	141
Dez. 6	10.069	51	46.90	80	7.276	13	40.95	232	4.22	26	42.55	329	29.916	48	67.35	148
16	10.120	104	46.10	78	7.289	59	38.63	246	3.96	12	39.26	348	29.964	111	65.87	149
26	10.224	155	45.32	74	7.348	104	36.17	252	3.84	2	35.78	356	30.075	172	64.38	144
36	10.379		44.58		7.452		33.65		3.86		32.22		30.247		62.94	
Mittl. Ort	7.375		55.31		5.883		25.73		9.49		24.66		27.029		74.51	
sec δ, tg δ	1.212		−0.685		1.077		+0.399		3.364		+3.212		1.440		−1.036	
a, a'	+4.0		+1.8		+2.5		+1.8		−1.2		+1.9		+4.5		+2.0	
b, b'	0.00		+1.00		0.00		+1.00		+0.02		+1.00		−0.01		+1.00	

[1]) Die jährliche Parallaxe (0.″118) ist bereits berücksichtigt.

Obere Kulmination Greenwich

Tag	694) *b* Draconis AR.		Dekl.		699) α Lyrae[1]) AR.		Dekl.		698) ζ Pavonis AR.		Dekl.		703) 110 Herculis AR.		Dekl.	
1939	18h 22m		+58° 45′		18h 34m		+38° 43′		18h 35m		−71° 28′		18h 43m		+20° 29′	
	s		″		s		″		s		″		s		″	
Jan. 1	58.888	109	59.07	351	51.201	108	39.20	308	52.25	33	54.65	277	1.387	110	18.26	239
11	58.997	186	55.56	339	51.309	157	36.12	301	52.58	44	51.88	263	1.497	149	15.87	234
21	59.183	258	52.17	315	51.466	201	33.11	280	53.02	55	49.25	242	1.646	184	13.53	219
31	59.441	321	49.02	279	51.667	240	30.31	249	53.57	64	46.83	217	1.830	214	11.34	195
Febr. 10	59.762	374	46.23	233	51.907	272	27.82	209	54.21	72	44.66	186	2.044	239	9.39	163
20	60.136	416	43.90	177	52.179	298	25.73	160	54.93	77	42.80	153	2.283	260	7.76	124
März 2	60.552	446	42.13	115	52.477	317	24.13	105	55.70	81	41.27	116	2.543	275	6.52	81
12	60.998	464	40.98	50	52.794	329	23.08	46	56.51	84	40.11	79	2.818	286	5.71	33
22	61.462	468	40.48	17	53.123	335	22.62	14	57.35	85	39.32	41	3.104	292	5.38	16
Apr. 1	61.930	459	40.65	83	53.458	333	22.76	74	58.20	84	38.91	1	3.396	293	5.54	63
11	62.389	439	41.48	144	53.791	324	23.50	129	59.04	83	38.90	37	3.689	289	6.17	108
21	62.828	408	42.92	199	54.115	308	24.79	179	59.87	79	39.27	75	3.978	280	7.25	148
Mai 1	63.236	366	44.91	247	54.423	286	26.58	223	60.66	75	40.02	111	4.258	265	8.73	182
11	63.602	315	47.38	286	54.709	258	28.81	258	61.41	68	41.13	144	4.523	245	10.55	210
21	63.917	256	50.24	316	54.967	223	31.39	285	62.09	60	42.57	175	4.768	220	12.65	231
31	64.173	192	53.40	335	55.190	184	34.24	304	62.69	52	44.32	201	4.988	189	14.96	244
Juni 10	64.365	122	56.75	345	55.374	139	37.28	313	63.21	41	46.33	222	5.177	153	17.40	250
20	64.487	49	60.20	346	55.513	92	40.41	313	63.62	30	48.55	237	5.330	115	19.90	249
29*)	[28] 64.536	24	63.66	338	[1] 55.605	42	43.54	306	[1] 63.92	17	50.92	247	[3] 5.445	73	22.39	242
Juli 9	64.512	96	67.04	322	55.647	9	46.60	291	64.09	5	53.39	248	5.518	29	24.81	228
19	64.416	167	70.26	297	55.638	59	49.51	269	64.14	7	55.87	242	5.547	16	27.09	211
29	64.249	232	73.23	266	55.579	107	52.20	243	64.07	20	58.29	228	5.531	58	29.20	189
Aug. 8	64.017	292	75.89	230	55.472	152	54.63	211	63.87	32	60.57	205	5.473	99	31.09	162
18	63.725	343	78.19	189	55.320	191	56.74	174	63.55	42	62.62	175	5.374	135	32.71	134
28	63.382	383	80.08	144	55.129	223	58.48	134	63.13	50	64.37	139	5.239	164	34.05	103
Sept. 7	62.999	413	81.52	95	54.906	246	59.82	91	62.63	57	65.76	96	5.075	187	35.08	70
17	62.586	430	82.47	44	54.660	261	60.73	46	62.06	61	66.72	49	4.888	202	35.78	36
27	62.156	434	82.91	9	54.399	265	61.19	1	61.45	62	67.21	2	4.686	206	36.14	2
Okt. 7	61.722	424	82.82	62	54.134	258	61.20	46	60.83	61	67.19	53	4.480	201	36.16	34
17	61.298	399	82.20	115	53.876	240	60.74	93	60.22	56	66.66	103	4.279	186	35.82	69
27	60.899	361	81.05	167	53.636	213	59.81	139	59.66	50	65.63	150	4.093	163	35.13	104
Nov. 6	60.538	310	79.38	215	53.423	177	58.42	182	59.16	40	64.13	191	3.930	131	34.09	137
16	60.228	250	77.23	258	53.246	134	56.60	221	58.76	28	62.22	226	3.799	93	32.72	167
26	59.978	180	74.65	296	53.112	85	54.39	255	58.48	16	59.96	253	3.706	52	31.05	194
Dez. 6	59.798	103	71.69	326	53.027	33	51.84	283	58.32	3	57.43	271	3.654	7	29.11	217
16	59.695	22	68.43	345	52.994	21	49.01	302	58.29	11	54.72	279	3.647	38	26.94	233
26	59.673	58	64.98	353	53.015	75	45.99	311	58.40	24	51.93	279	3.685	82	24.61	240
36	59.731		61.45		53.090		42.88		58.64		49.14		3.767		22.21	
Mittl. Ort	61.203		53.37		52.373		32.82		54.97		62.09		2.146		11.55	
sec δ, tg δ	1.929		+1.649		1.282		+0.802		3.149		−2.986		1.068		+0.374	
a, *a′*	+0.9		+2.0		+2.0		+3.0		+7.0		+3.1		+2.6		+3.7	
b, *b′*	+0.01		+0.99		+0.01		+0.99		−0.03		+0.99		0.00		+0.98	

[1]) Die jährliche Parallaxe (0″.124) ist bereits berücksichtigt.

*) Bei Stern 699), 698) und 703) lies Juni 30.

Scheinbare Sternörter 1939

Tag	704) λ Pavonis AR.		704) λ Pavonis Dekl.		705) β Lyrae AR.		705) β Lyrae Dekl.		707) o Draconis AR.		707) o Draconis Dekl.		706) σ Sagittarii AR.		706) σ Sagittarii Dekl.	
1939	$18^h\ 46^m$		$-62°\ 15'$		$18^h\ 47^m$		$+33°\ 17'$		$18^h\ 50^m$		$+59°\ 18'$		$18^h\ 51^m$		$-26°\ 22'$	
	s		″		s		″		s		″		s		″	
Jan. 1	32.48	23	30.08	240	48.654	95	34.06	289	15.897	59	56.14	348	28.377	141	21.70	34
11	32.71	30	27.68	231	48.749	140	31.17	284	15.956	139	52.66	342	28.518	179	21.36	34
21	33.01	38	25.37	216	48.889	181	28.33	268	16.095	214	49.24	326	28.697	214	21.02	33
31	33.39	44	23.21	197	49.070	217	25.65	240	16.309	282	45.98	296	28.911	244	20.69	33
Febr. 10	33.83	49	21.24	173	49.287	249	23.25	203	16.591	342	43.02	254	29.155	268	20.36	35
20	34.32	53	19.51	147	49.536	275	21.22	159	16.933	393	40.48	204	29.423	287	20.01	39
März 2	34.85	55	18.04	118	49.811	294	19.63	107	17.326	433	38.44	145	29.710	302	19.62	42
12	35.40	58	16.86	88	50.105	308	18.56	52	17.759	459	36.99	82	30.012	312	19.20	46
22	35.98	59	15.98	57	50.413	316	18.04	5	18.218	472	36.17	15	30.324	320	18.74	50
Apr. 1	36.57	60	15.41	25	50.729	318	18.09	61	18.690	474	36.02	51	30.644	323	18.24	52
11	37.17	58	15.16	7	51.047	313	18.70	115	19.164	463	36.53	114	30.967	322	17.72	53
21	37.75	56	15.23	39	51.360	301	19.85	163	19.627	438	37.67	173	31.289	315	17.19	52
Mai 1	38.31	54	15.62	72	51.661	284	21.48	206	20.065	403	39.40	224	31.604	304	16.67	48
11	38.85	50	16.34	101	51.945	261	23.54	241	20.468	357	41.64	267	31.908	287	16.19	42
21	39.35	45	17.35	129	52.206	231	25.95	268	20.825	302	44.31	303	32.195	264	15.77	34
31	39.80	39	18.64	155	52.437	196	28.63	286	21.127	240	47.34	328	32.459	235	15.43	25
Juni 10	40.19	33	20.19	176	52.633	155	31.49	296	21.367	171	50.62	344	32.694	200	15.18	14
20	40.52	25	21.95	193	52.788	112	34.45	298	21.538	99	54.06	351	32.894	161	15.04	2
30	40.77	16	23.88	205	52.900	65	37.43	293	21.637	23	57.57	348	33.055	118	15.02	8
Juli 9	4 40.93	8	25.93	210	4 52.965	17	40.36	281	5 21.660	52	61.05	337	5 33.173	70	15.10	19
19	41.01	1	28.03	208	52.982	32	43.17	261	21.608	126	64.42	317	33.243	22	15.29	28
29	41.00	10	30.11	200	52.950	79	45.78	236	21.482	196	67.59	292	33.265	26	15.57	34
Aug. 8	40.90	18	32.11	184	52.871	123	48.14	207	21.286	261	70.51	259	33.239	71	15.91	37
18	40.72	25	33.95	161	52.748	161	50.21	174	21.025	318	73.10	222	33.168	113	16.28	39
28	40.47	32	35.56	131	52.587	194	51.95	137	20.707	365	75.32	179	33.055	148	16.67	36
Sept. 7	40.15	37	36.87	96	52.393	219	53.32	97	20.342	403	77.11	132	32.907	175	17.03	32
17	39.78	40	37.83	57	52.174	235	54.29	55	19.939	427	78.43	82	32.732	193	17.35	24
27	39.38	41	38.40	13	51.939	242	54.84	13	19.512	438	79.25	31	32.539	199	17.59	15
Okt. 7	38.97	40	38.53	31	51.697	237	54.97	31	19.074	435	79.56	23	32.340	195	17.74	5
17	38.57	38	38.22	74	51.460	223	54.66	76	18.639	419	79.33	77	32.145	180	17.79	4
27	38.19	33	37.48	117	51.237	199	53.90	119	18.220	388	78.56	130	31.965	153	17.75	14
Nov. 6	37.86	27	36.31	154	51.038	167	52.71	160	17.832	344	77.26	182	31.812	119	17.61	22
16	37.59	19	34.77	185	50.871	127	51.11	198	17.488	290	75.44	229	31.693	78	17.39	27
26	37.40	10	32.92	211	50.744	83	49.13	232	17.198	224	73.15	271	31.615	31	17.12	31
Dez. 6	37.30	2	30.81	228	50.661	35	46.81	259	16.974	151	70.44	306	31.584	17	16.81	34
16	37.28	8	28.53	238	50.626	14	44.22	279	16.823	74	67.38	332	31.601	65	16.47	33
26	37.36	18	26.15	240	50.640	64	41.43	291	16.749	8	64.06	346	31.666	111	16.14	33
36	37.54		23.75		50.704		38.52		16.757		60.60		31.777		15.81	
Mittl. Ort	34.16		36.64		49.650		26.79		18.163		47.89		28.995		27.88	
sec δ, tg δ	2.149		−1.902		1.196		+0.657		1.959		+1.685		1.116		−0.496	
a, *a′*	+5.6		+4.0		+2.2		+4.2		+0.9		+4.4		+3.7		+4.5	
b, *b′*	−0.03		+0.98		+0.01		+0.98		+0.02		+0.98		−0.01		+0.97	

Tag	709) ϑ Serpent. pr. AR.		709) Dekl.		711) *R* Lyrae AR.		711) Dekl.		708) λ Telescopii AR.		708) Dekl.		713) γ Lyrae AR.		713) Dekl.	
1939	$18^h\ 53^m$		$+4°\ 7'$		$18^h\ 53^m$		$+43°\ 51'$		$18^h\ 53^m$		$-53°\ 0'$		$18^h\ 56^m$		$+32°\ 36'$	
	s		"		s		"		s		"		s		"	
Jan. 1	10.620	112	28.26	151	27.452	78	60.93	321	33.971	181	67.16	195	38.705	85	24.74	285
11	10.732	148	26.75	148	27.530	131	57.72	315	34.152	242	65.21	189	38.790	131	21.89	281
21	10.880	180	25.27	138	27.661	182	54.57	299	34.394	296	63.32	179	38.921	171	19.08	266
31	11.060	207	23.89	122	27.843	227	51.58	271	34.690	343	61.53	166	39.092	208	16.42	240
Febr. 10	11.267	230	22.67	100	28.070	266	48.87	232	35.033	381	59.87	149	39.300	241	14.02	205
20	11.497	249	21.67	72	28.336	299	46.55	184	35.414	412	58.38	130	39.541	267	11.97	161
März 2	11.746	264	20.95	41	28.635	324	44.71	129	35.826	436	57.08	110	39.808	288	10.36	111
12	12.010	275	20.54	8	28.959	343	43.42	70	36.262	452	55.98	88	40.096	303	9.25	57
22	12.285	282	20.46	27	29.302	354	42.72	7	36.714	463	55.10	65	40.399	313	8.68	0
Apr. 1	12.567	285	20.73	61	29.656	356	42.65	54	37.177	467	54.45	41	40.712	316	8.68	55
11	12.852	284	21.34	92	30.012	350	43.19	113	37.644	463	54.04	16	41.028	314	9.23	109
21	13.136	277	22.26	120	30.362	338	44.32	167	38.107	452	53.88	9	41.342	304	10.32	157
Mai 1	13.413	267	23.46	142	30.700	316	45.99	215	38.559	434	53.97	35	41.646	288	11.89	201
11	13.680	251	24.88	160	31.016	287	48.14	255	38.993	407	54.32	60	41.934	267	13.90	236
21	13.931	229	26.48	171	31.303	252	50.69	287	39.400	372	54.92	85	42.201	238	16.26	263
31	14.160	203	28.19	178	31.555	211	53.56	310	39.772	328	55.77	107	42.439	204	18.89	284
Juni 10	14.363	171	29.97	179	31.766	163	56.66	323	40.100	277	56.84	128	42.643	165	21.73	294
20	14.534	134	31.76	175	31.929	113	59.89	328	40.377	219	58.12	145	42.808	121	24.67	298
30	6 14.668	95	33.51	167	6 32.042	59	63.17	325	6 40.596	154	59.57	158	7 42.929	75	27.65	293
Juli 9	14.763	54	35.18	155	32.101	3	66.42	313	40.750	86	61.15	166	43.004	28	30.58	281
19	14.817	10	36.73	139	32.104	51	69.55	294	40.836	17	62.81	168	43.032	21	33.39	263
29	14.827	32	38.12	122	32.053	104	72.49	269	40.853	53	64.49	164	43.011	69	36.02	240
Aug. 8	14.795	72	39.34	103	31.949	154	75.18	238	40.800	120	66.13	154	42.942	113	38.42	211
18	14.723	108	40.37	84	31.795	198	77.56	202	40.680	180	67.67	138	42.829	153	40.53	179
28	14.615	139	41.21	62	31.597	235	79.58	163	40.500	231	69.05	116	42.676	186	42.32	143
Sept. 7	14.476	163	41.83	41	31.362	263	81.21	120	40.269	272	70.21	88	42.490	212	43.75	104
17	14.313	178	42.24	20	31.099	282	82.41	73	39.997	298	71.09	57	42.278	230	44.79	63
27	14.135	184	42.44	1	30.817	291	83.14	25	39.699	309	71.66	22	42.048	238	45.42	20
Okt. 7	13.951	180	42.43	22	30.526	288	83.39	24	39.390	305	71.88	15	41.810	235	45.62	23
17	13.771	167	42.21	44	30.238	274	83.15	73	39.085	285	71.73	51	41.575	222	45.39	67
27	13.604	145	41.77	64	29.964	249	82.42	123	38.800	249	71.22	86	41.353	200	44.72	109
Nov. 6	13.459	115	41.13	85	29.715	216	81.19	169	38.551	200	70.36	117	41.153	170	43.63	151
16	13.344	80	40.28	104	29.499	174	79.50	212	38.351	141	69.19	145	40.983	132	42.12	190
26	13.264	40	39.24	121	29.325	125	77.38	251	38.210	75	67.74	166	40.851	89	40.22	223
Dez. 6	13.224	3	38.03	136	29.200	71	74.87	283	38.135	4	66.08	181	40.762	42	37.99	252
16	13.227	45	36.67	146	29.129	16	72.04	306	38.131	68	64.27	190	40.720	6	35.47	274
26	13.272	86	35.21	153	29.113	41	68.98	320	38.199	138	62.37	194	40.726	55	32.73	284
36	13.358		33.68		29.154		65.78		38.337		60.43		40.781		29.89	
Mittl. Ort	11.212		21.56		28.764		52.93		35.147		73.20		39.667		16.94	
sec δ, tg δ	1.003		+0.072		1.387		+0.961		1.662		−1.328		1.187		+0.640	
a, *a′*	+3.0		+4.6		+1.8		+4.6		+4.8		+4.6		+2.2		+4.9	
b, *b′*	0.00		+0.97		+0.01		+0.97		−0.02		+0.97		+0.01		+0.97	

Tag	716) ζ Aquilae				717) λ Aquilae				718) α Coron. austr.				720) π Sagittarii			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$19^h\ 2^m$		$+13°\ 46'$		$19^h\ 3^m$		$-4°\ 58'$		$19^h\ 5^m$		$-37°\ 59'$		$19^h\ 6^m$		$-21°\ 7'$	
	s		"		s		"		s		"		s		"	
Jan. 1	35.697	95	24.09	201	0.153	109	25.39	95	18.628	137	60.01	111	7.620	119	14.34	7
11	35.792	133	22.08	198	0.262	145	26.34	93	18.765	184	58.90	110	7.739	158	14.27	7
21	35.925	167	20.10	186	0.407	177	27.27	86	18.949	224	57.80	107	7.897	191	14.20	9
31	36.092	197	18.24	167	0.584	204	28.13	74	19.173	259	56.73	103	8.088	221	14.11	14
Febr. 10	36.289	222	16.57	140	0.788	229	28.87	58	19.432	289	55.70	98	8.309	245	13.97	20
20	36.511	244	15.17	106	1.017	248	29.45	38	19.721	313	54.72	92	8.554	266	13.77	28
März 2	36.755	261	14.11	68	1.265	262	29.83	14	20.034	333	53.80	86	8.820	283	13.49	38
12	37.016	274	13.43	27	1.527	275	29.97	12	20.367	348	52.94	79	9.103	295	13.11	47
22	37.290	283	13.16	16	1.802	284	29.85	37	20.715	358	52.15	71	9.398	304	12.64	56
Apr. 1	37.573	288	13.32	58	2.086	288	29.48	62	21.073	363	51.44	61	9.702	310	12.08	64
11	37.861	288	13.90	98	2.374	289	28.86	85	21.436	364	50.83	50	10.012	311	11.44	71
21	38.149	282	14.88	134	2.663	284	28.01	104	21.800	359	50.33	38	10.323	307	10.73	74
Mai 1	38.431	271	16.22	165	2.947	276	26.97	119	22.159	348	49.95	23	10.630	299	9.99	75
11	38.702	256	17.87	190	3.223	262	25.78	130	22.507	331	49.72	7	10.929	284	9.24	72
21	38.958	234	19.77	208	3.485	241	24.48	137	22.838	307	49.65	9	11.213	264	8.52	68
31	39.192	206	21.85	220	3.726	216	23.11	138	23.145	275	49.74	26	11.477	238	7.84	59
Juni 10	39.398	174	24.05	225	3.942	186	21.73	135	23.420	237	50.00	43	11.715	206	7.25	50
20	39.572	137	26.30	224	4.128	150	20.38	129	23.657	194	50.43	59	11.921	168	6.75	39
30	39.709	97	28.54	217	4.278	110	19.09	119	23.851	144	51.02	72	12.089	127	6.36	27
Juli 9	[8] 39.806	54	30.71	206	[8] 4.388	69	17.90	107	[9] 23.995	92	51.74	84	[9] 12.216	81	6.09	14
19	39.860	10	32.77	189	4.457	25	16.83	94	24.087	37	52.58	92	12.297	35	5.95	3
29	39.870	33	34.66	170	4.482	19	15.89	79	24.124	18	53.50	96	12.332	12	5.92	7
Aug. 8	39.837	74	36.36	147	4.463	60	15.10	63	24.106	70	54.46	95	12.320	57	5.99	14
18	39.763	112	37.83	121	4.403	98	14.47	48	24.036	119	55.41	91	12.263	98	6.13	20
28	39.651	143	39.04	95	4.305	130	13.99	34	23.917	161	56.32	80	12.165	133	6.33	24
Sept. 7	39.508	168	39.99	68	4.175	155	13.65	19	23.756	194	57.12	67	12.032	162	6.57	24
17	39.340	185	40.67	38	4.020	173	13.46	6	23.562	217	57.79	50	11.870	181	6.81	23
27	39.155	193	41.05	9	3.847	180	13.40	7	23.345	227	58.29	29	11.689	190	7.04	19
Okt. 7	38.962	190	41.14	21	3.667	178	13.47	19	23.118	226	58.58	8	11.499	188	7.23	16
17	38.772	179	40.93	50	3.489	166	13.66	31	22.892	212	58.66	15	11.311	175	7.39	10
27	38.593	159	40.43	80	3.323	144	13.97	42	22.680	186	58.51	37	11.136	153	7.49	6
Nov. 6	38.434	130	39.63	108	3.179	116	14.39	55	22.494	149	58.14	56	10.983	123	7.55	2
16	38.304	96	38.55	135	3.063	81	14.94	67	22.345	105	57.58	74	10.860	85	7.57	1
26	38.208	57	37.20	158	2.982	41	15.61	77	22.240	55	56.84	88	10.775	42	7.56	3
Dez. 6	38.151	16	35.62	178	2.941	0	16.38	86	22.185	2	55.96	98	10.733	2	7.53	4
16	38.135	27	33.84	193	2.941	42	17.24	93	22.183	52	54.98	105	10.735	48	7.49	3
26	38.162	68	31.91	202	2.983	83	18.17	98	22.235	105	53.93	108	10.783	91	7.46	3
36	38.230		29.89		3.066		19.15		22.340		52.85		10.874		7.43	
Mittl. Ort	36.354		16.78		0.707		31.94		19.404		65.57		8.208		20.29	
sec δ, tg δ	1.030		+0.245		1.004		−0.087		1.269		−0.781		1.072		−0.386	
a, a'	+2.8		+5.4		+3.2		+5.4		+4.1		+5.6		+3.6		+5.7	
b, b'	0.00		+0.96		0.00		+0.96		−0.01		+0.96		−0.01		+0.96	

Tag	723) δ Draconis AR.		723) δ Draconis Dekl.		724) ϑ Lyrae AR.		724) ϑ Lyrae Dekl.		725) ω Aquilae AR.		725) ω Aquilae Dekl.		726) ϰ Cygni AR.		726) ϰ Cygni Dekl.	
1939	19h 12m		+67° 33′		19h 14m		+38° 1′		19h 14m		+11° 28′		19h 15m		+53° 15′	
Jan. 1	29.62	2	25.60	345	13.945	59	35.53	298	56.558	85	70.01	185	39.950	31	28.68	333
11	29.60	9	22.15	347	14.004	107	32.55	298	56.643	122	68.16	183	39.981	96	25.35	334
21	29.69	20	18.68	336	14.111	153	29.57	285	56.765	156	66.33	173	40.077	160	22.01	322
31	29.89	30	15.32	313	14.264	195	26.72	261	56.921	186	64.60	155	40.237	220	18.79	298
Febr. 10	30.19	38	12.19	277	14.459	233	24.11	227	57.107	212	63.05	130	40.457	273	15.81	263
20	30.57	46	9.42	230	14.692	264	21.84	184	57.319	235	61.75	99	40.730	320	13.18	217
März 2	31.03	53	7.12	174	14.956	291	20.00	134	57.554	254	60.76	63	41.050	358	11.01	163
12	31.56	58	5.38	113	15.247	312	18.66	78	57.808	268	60.13	23	41.408	388	9.38	102
22	32.14	60	4.25	48	15.559	325	17.88	20	58.076	280	59.90	17	41.796	406	8.36	38
Apr. 1	32.74	62	3.77	18	15.884	333	17.68	40	58.356	286	60.07	57	42.202	415	7.98	26
11	33.36	61	3.95	84	16.217	333	18.08	96	58.642	288	60.64	95	42.617	414	8.24	89
21	33.97	58	4.79	145	16.550	326	19.04	149	58.930	285	61.59	129	43.031	402	9.13	148
Mai 1	34.55	54	6.24	200	16.876	311	20.53	196	59.215	276	62.88	159	43.433	379	10.61	202
11	35.09	48	8.24	248	17.187	289	22.49	236	59.491	262	64.47	184	43.812	347	12.63	248
21	35.57	41	10.72	288	17.476	261	24.85	269	59.753	242	66.31	201	44.159	307	15.11	285
31	35.98	33	13.60	319	17.737	226	27.54	293	59.995	217	68.32	212	44.466	258	17.96	315
Juni 10	36.31	24	16.79	341	17.963	185	30.47	308	60.212	185	70.44	217	44.724	203	21.11	335
20	36.55	15	20.20	353	18.148	140	33.55	315	60.397	150	72.61	216	44.927	142	24.46	345
30	36.70	5	23.73	356	18.288	91	36.70	313	60.547	110	74.77	209	45.069	78	27.91	347
Juli 10	36.75	6	27.29	350	18.379	39	39.83	305	60.657	67	76.86	198	45.147	13	31.38	340
19	36.69	15	30.79	337	18.418	13	42.88	289	60.724	24	78.84	183	45.160	53	34.78	325
29	36.54	24	34.16	315	18.405	63	45.77	267	60.748	20	80.67	164	45.107	117	38.03	304
Aug. 8	36.30	34	37.31	287	18.342	111	48.44	240	60.728	62	82.31	143	44.990	177	41.07	275
18	35.96	41	40.18	253	18.231	155	50.84	207	60.666	100	83.74	118	44.813	231	43.82	241
28	35.55	48	42.71	213	18.076	193	52.91	170	60.566	133	84.92	93	44.582	277	46.23	202
Sept. 7	35.07	53	44.84	168	17.883	223	54.61	130	60.433	160	85.85	67	44.305	314	48.25	158
17	34.54	57	46.52	121	17.660	244	55.91	88	60.273	178	86.52	40	43.991	342	49.83	111
27	33.97	60	47.73	69	17.416	255	56.79	43	60.095	187	86.92	13	43.649	357	50.94	61
Okt. 7	33.37	60	48.42	15	17.161	256	57.22	3	59.908	187	87.05	15	43.292	360	51.55	10
17	32.77	59	48.57	40	16.905	247	57.19	50	59.721	178	86.90	43	42.932	351	51.65	44
27	32.18	56	48.17	95	16.658	228	56.69	96	59.543	159	86.47	70	42.581	329	51.21	97
Nov. 6	31.62	52	47.22	149	16.430	199	55.73	142	59.384	133	85.77	97	42.252	297	50.24	149
16	31.10	45	45.73	201	16.231	163	54.31	185	59.251	101	84.80	121	41.955	254	48.75	197
26	30.65	38	43.72	247	16.068	121	52.46	222	59.150	63	83.59	144	41.701	202	46.78	242
Dez. 6	30.27	29	41.25	287	15.947	74	50.24	255	59.087	23	82.15	163	41.499	143	44.36	280
16	29.98	19	38.38	319	15.873	24	47.69	280	59.064	18	80.52	177	41.356	80	41.56	309
26	29.79	9	35.19	340	15.849	26	44.89	296	59.082	58	78.75	186	41.276	14	38.47	329
36	29.70		31.79		15.875		41.93		59.140		76.89		41.262		35.18	
Mittl. Ort	32.78		14.98		15.001		26.34		57.177		62.44		41.636		18.50	
sec δ, tg δ	2.619		+2.421		1.269		+0.782		1.020		+0.203		1.672		+1.339	
a, a'	0.0		+6.2		+2.1		+6.4		+2.8		+6.4		+1.4		+6.5	
b, b'	+0.05		+0.95		+0.02		+0.95		0.00		+0.95		+0.03		+0.95	

Scheinbare Sternörter 1939

Tag	729) τ Draconis				728) α Sagittarii				730) δ Aquilae				733) ι Cygni			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$19^h\ 16^m$		$+73°\ 14'$		$19^h\ 19^m$		$-40°\ 43'$		$19^h\ 22^m$		$+2°\ 59'$		$19^h\ 28^m$		$+51°\ 35'$	
	s		"		s		"		s		"		s		"	
Jan. 1	39.83	8	45.34	342	38.901	122	52.29	131	24.804	85	37.25	137	8.585	16	67.41	326
11	39.75	7	41.92	346	39.023	170	50.98	133	24.889	121	35.88	134	8.601	78	64.15	330
21	39.82	22	38.46	337	39.193	214	49.65	131	25.010	153	34.54	125	8.679	139	60.85	321
31	40.04	35	35.09	315	39.407	252	48.34	127	25.163	183	33.29	111	8.818	198	57.64	299
Febr. 10	40.39	47	31.94	281	39.659	284	47.07	122	25.346	209	32.18	91	9.016	251	54.65	266
20	40.86	58	29.13	236	39.943	312	45.85	115	25.555	231	31.27	65	9.267	297	51.99	223
März 2	41.44	67	26.77	182	40.255	334	44.70	108	25.786	249	30.62	35	9.564	336	49.76	171
12	42.11	74	24.95	122	40.589	352	43.62	99	26.035	265	30.27	3	9.900	368	48.05	112
22	42.85	78	23.73	57	40.941	366	42.63	89	26.300	277	30.24	29	10.268	389	46.93	49
Apr. 1	43.63	79	23.16	9	41.307	375	41.74	76	26.577	284	30.53	62	10.657	402	46.44	14
11	44.42	78	23.25	73	41.682	377	40.98	63	26.861	287	31.15	93	11.059	403	46.58	77
21	45.20	75	23.98	135	42.059	375	40.35	47	27.148	287	32.08	120	11.462	396	47.35	136
Mai 1	45.95	69	25.33	191	42.434	367	39.88	30	27.435	280	33.28	143	11.858	378	48.71	191
11	46.64	62	27.24	240	42.801	351	39.58	11	27.715	267	34.71	160	12.236	350	50.62	238
21	47.26	52	29.64	281	43.152	327	39.47	9	27.982	249	36.31	172	12.586	313	53.00	277
31	47.78	41	32.45	313	43.479	297	39.56	29	28.231	226	38.03	179	12.899	269	55.77	308
Juni 10	48.19	30	35.58	337	43.776	259	39.85	48	28.457	196	39.82	180	13.168	217	58.85	330
20	48.49	17	38.95	350	44.035	215	40.33	67	28.653	162	41.62	177	13.385	160	62.15	342
30	48.66	3	42.45	355	44.250	165	41.00	83	28.815	123	43.39	168	13.545	99	65.57	346
Juli 10	48.69	9	46.00	351	44.415	110	41.83	97	28.938	81	45.07	157	13.644	36	69.03	341
19	[12] 48.60	22	49.51	338	[12] 44.525	53	42.80	107	[13] 29.019	38	46.64	142	[15] 13.680	28	72.44	329
29	48.38	34	52.89	319	44.578	4	43.87	112	29.057	6	48.06	124	13.652	91	75.73	309
Aug. 8	48.04	46	56.08	292	44.574	59	44.99	112	29.051	49	49.30	106	13.561	150	78.82	282
18	47.58	56	59.00	259	44.515	112	46.11	108	29.002	87	50.36	86	13.411	205	81.64	250
28	47.02	65	61.59	221	44.403	158	47.19	98	28.915	121	51.22	65	13.206	251	84.14	213
Sept. 7	46.37	72	63.80	178	44.245	194	48.17	84	28.794	148	51.87	45	12.955	290	86.27	170
17	45.65	77	65.58	130	44.051	220	49.01	65	28.646	168	52.32	24	12.665	319	87.97	124
27	44.88	80	66.88	79	43.831	235	49.66	43	28.478	178	52.56	4	12.346	336	89.21	76
Okt. 7	44.08	82	67.67	26	43.596	237	50.09	19	28.300	179	52.60	16	12.010	342	89.97	24
17	43.26	81	67.93	28	43.359	226	50.28	7	28.121	171	52.44	35	11.668	336	90.21	28
27	42.45	77	67.65	84	43.133	202	50.21	33	27.950	153	52.09	55	11.332	318	89.93	81
Nov. 6	41.68	72	66.81	138	42.931	167	49.88	56	27.797	128	51.54	74	11.014	289	89.12	133
16	40.96	64	65.43	191	42.764	124	49.32	78	27.669	96	50.80	91	10.725	250	87.79	183
26	40.32	55	63.52	238	42.640	75	48.54	96	27.573	60	49.89	107	10.475	202	85.96	228
Dez. 6	39.77	43	61.14	279	42.565	21	47.58	110	27.513	20	48.82	121	10.273	148	83.68	267
16	39.34	30	58.35	313	42.544	34	46.48	120	27.493	19	47.61	132	10.125	89	81.01	298
26	39.04	17	55.22	336	42.578	88	45.28	126	27.512	59	46.29	138	10.036	27	78.03	321
36	38.87		51.86		42.666		44.02		27.571		44.91		10.009		74.82	
Mittl. Ort	44.25		34.08		39.743		57.14		25.363		30.07		10.114		56.34	
sec δ, tg δ	3.468		+3.321		1.320		−0.861		1.001		+0.052		1.610		+1.262	
a, *a'*	−1.1		+6.6		+4.2		+6.8		+3.0		+7.1		+1.5		+7.5	
b, *b'*	+0.07		+0.94		−0.02		+0.94		0.00		+0.94		+0.03		+0.93	

Tag	732) β Cygni AR.	Diff.	732) β Cygni Dekl.	Diff.	736) *h* Sagittarii AR.	Diff.	736) *h* Sagittarii Dekl.	Diff.	738) ϑ Cygni AR.	Diff.	738) ϑ Cygni Dekl.	Diff.	742) δ Cygni AR.	Diff.	742) δ Cygni Dekl.	Diff.
1939	19^h 28^m		+27° 49′		19^h 32^m		−25° 0′		19^h 34^m		+50° 4′		19^h 43^m		+44° 58′	
Jan. 1	14.854	56	58.41	258	59.199	93	66.58	37	46.897	10	55.41	321	2.966	11	62.69	307
11	14.910	98	55.83	257	59.292	133	66.21	41	46.907	70	52.20	325	2.977	65	59.62	312
21	15.008	137	53.26	248	59.425	169	65.80	45	46.977	129	48.95	317	3.042	117	56.50	306
31	15.145	174	50.78	227	59.594	201	65.35	49	47.106	185	45.78	298	3.159	168	53.44	287
Febr. 10	15.319	207	48.51	198	59.795	229	64.86	55	47.291	237	42.80	266	3.327	215	50.57	258
20	15.526	236	46.53	161	60.024	254	64.31	61	47.528	283	40.14	224	3.542	256	47.99	218
März 2	15.762	260	44.92	116	60.278	274	63.70	68	47.811	322	37.90	173	3.798	292	45.81	169
12	16.022	280	43.76	66	60.552	291	63.02	75	48.133	353	36.17	115	4.090	321	44.12	114
22	16.302	295	43.10	14	60.843	305	62.27	80	48.486	376	35.02	54	4.411	344	42.98	54
Apr. 1	16.597	304	42.96	39	61.148	315	61.47	84	48.862	390	34.48	9	4.755	359	42.44	7
11	16.901	308	43.35	88	61.463	321	60.63	87	49.252	394	34.57	72	5.114	365	42.51	67
21	17.209	305	44.23	137	61.784	321	59.76	86	49.646	388	35.29	131	5.479	363	43.18	125
Mai 1	17.514	297	45.60	180	62.105	316	58.90	83	50.034	373	36.60	185	5.842	352	44.43	178
11	17.811	281	47.40	215	62.421	306	58.07	77	50.407	348	38.45	232	6.194	332	46.21	224
21	18.092	258	49.55	244	62.727	289	57.30	67	50.755	314	40.77	273	6.526	304	48.45	263
31	18.350	230	51.99	265	63.016	265	56.63	56	51.069	272	43.50	304	6.830	268	51.08	294
Juni 10	18.580	196	54.64	279	63.281	234	56.07	43	51.341	223	46.54	326	7.098	224	54.02	316
20	18.776	156	57.43	284	63.515	198	55.64	27	51.564	168	49.80	340	7.322	176	57.18	330
30	18.932	113	60.27	283	63.713	156	55.37	12	51.732	110	53.20	344	7.498	124	60.48	335
Juli 10	19.045	67	63.10	275	63.869	111	55.25	2	51.842	48	56.64	341	7.622	67	63.83	331
19	[15] 19.112	19	65.85	260	[16] 63.980	62	55.27	16	[16] 51.890	14	60.05	329	[18] 7.689	9	67.14	321
29	19.131	28	68.45	239	64.042	14	55.43	27	51.876	75	63.34	310	7.698	47	70.35	302
Aug. 8	19.103	73	70.84	215	64.056	34	55.70	37	51.801	134	66.44	285	7.651	102	73.37	278
18	19.030	115	72.99	186	64.022	80	56.07	43	51.667	188	69.29	254	7.549	152	76.15	249
28	18.915	152	74.85	154	63.942	119	56.50	46	51.479	234	71.83	216	7.397	197	78.64	213
Sept. 7	18.763	181	76.39	118	63.823	152	56.96	46	51.245	272	73.99	175	7.200	234	80.77	173
17	18.582	202	77.57	82	63.671	176	57.42	42	50.973	302	75.74	131	6.966	262	82.50	130
27	18.380	215	78.39	43	63.495	190	57.84	36	50.671	321	77.05	82	6.704	280	83.80	84
Okt. 7	18.165	217	78.82	3	63.305	193	58.20	28	50.350	327	77.87	32	6.424	288	84.64	35
17	17.948	211	78.85	38	63.112	185	58.48	18	50.023	322	78.19	20	6.136	285	84.99	14
27	17.737	195	78.47	78	62.927	168	58.66	9	49.701	307	77.99	73	5.851	271	84.85	65
Nov. 6	17.542	170	77.69	118	62.759	141	58.75	1	49.394	279	77.26	125	5.580	247	84.20	115
16	17.372	139	76.51	155	62.618	106	58.74	10	49.115	243	76.01	174	5.333	215	83.05	162
26	17.233	101	74.96	188	62.512	66	58.64	18	48.872	199	74.27	219	5.118	174	81.43	207
Dez. 6	17.132	60	73.08	218	62.446	23	58.46	23	48.673	146	72.08	259	4.944	128	79.36	246
16	17.072	17	70.90	240	62.423	22	58.23	28	48.527	90	69.49	292	4.816	78	76.90	278
26	17.055	27	68.50	255	62.445	65	57.95	32	48.437	31	66.57	314	4.738	25	74.12	300
36	17.082		65.95		62.510		57.63		48.406		63.43		4.713		71.12	
Mittl. Ort	15.643		49.13		59.812		71.71		48.314		43.95		4.129		51.06	
sec δ, tg δ	1.131		+0.528		1.104		−0.467		1.558		+1.195		1.414		+0.999	
a, *a*′	+2.4		+7.5		+3.6		+7.9		+1.6		+8.1		+1.9		+8.7	
b, *b*′	+0.01		+0.93		−0.01		+0.92		+0.03		+0.92		+0.03		+0.90	

Scheinbare Sternörter 1939

Tag	741) γ Aquilae AR.		Dekl.		743) δ Sagittae AR.		Dekl.		745) α Aquilae [1] AR.		Dekl.		747) ε Draconis AR.		Dekl.	
1939	$19^h\ 43^m$		$+10°\ 27'$		$19^h\ 44^m$		$+18°\ 22'$		$19^h\ 47^m$		$+8°\ 42'$		$19^h\ 48^m$		$+70°\ 6'$	
	s		"		s		"		s		"		s		"	
Jan. 1	21.004	59	56.11	171	39.432	49	66.31	210	47.863	59	29.15	160	20.10	12	59.00	330
11	21.063	94	54.40	171	39.481	88	64.21	211	47.922	95	27.55	158	19.98	1	55.70	342
21	21.157	129	52.69	163	39.569	124	62.10	203	48.017	129	25.97	150	19.97	11	52.28	341
31	21.286	161	51.06	147	39.693	157	60.07	186	48.146	160	24.47	135	20.08	22	48.87	327
Febr. 10	21.447	189	49.59	124	39.850	188	58.21	162	48.306	188	23.12	113	20.30	34	45.60	301
20	21.636	214	48.35	96	40.038	215	56.59	129	48.494	214	21.99	86	20.64	44	42.59	262
März 2	21.850	236	47.39	62	40.253	239	55.30	91	48.708	235	21.13	53	21.08	53	39.97	213
12	22.086	255	46.77	25	40.492	259	54.39	48	48.943	255	20.60	17	21.61	59	37.84	157
22	22.341	271	46.52	14	40.751	276	53.91	4	49.198	270	20.43	20	22.20	65	36.27	95
Apr. 1	22.612	282	46.66	53	41.027	288	53.87	42	49.468	282	20.63	58	22.85	68	35.32	30
11	22.894	289	47.19	91	41.315	294	54.29	87	49.750	288	21.21	94	23.53	68	35.02	36
21	23.183	290	48.10	125	41.609	296	55.16	127	50.038	291	22.15	126	24.21	67	35.38	99
Mai 1	23.473	286	49.35	155	41.905	291	56.43	164	50.329	288	23.41	154	24.88	64	36.37	158
11	23.759	276	50.90	179	42.196	280	58.07	194	50.617	278	24.95	178	25.52	59	37.95	211
21	24.035	260	52.69	198	42.476	263	60.01	219	50.895	262	26.73	195	26.11	52	40.06	258
31	24.295	238	54.67	210	42.739	239	62.20	236	51.157	240	28.68	207	26.63	44	42.64	296
Juni 10	24.533	209	56.77	216	42.978	209	64.56	246	51.397	212	30.75	211	27.07	35	45.60	325
20	24.742	175	58.93	216	43.187	174	67.02	250	51.609	179	32.86	210	27.42	25	48.85	346
30	24.917	137	61.09	211	43.361	134	69.52	247	51.788	140	34.96	204	27.67	14	52.31	357
Juli 10	25.054	95	63.20	201	43.495	91	71.99	239	51.928	99	37.00	193	27.81	3	55.88	360
19*)	18 25.149	51	65.21	186	19 43.586	46	74.38	225	52.027	55	38.93	179	20 27.84	9	59.48	354
29	25.200	7	67.07	168	43.632	0	76.63	207	20 52.082	11	40.72	160	27.75	19	63.02	341
Aug. 8	25.207	37	68.75	147	43.632	44	78.70	184	52.093	32	42.32	140	27.56	29	66.43	319
18	25.170	77	70.22	124	43.588	85	80.54	159	52.061	73	43.72	118	27.27	39	69.62	291
28	25.093	113	71.46	100	43.503	122	82.13	131	51.988	109	44.90	94	26.88	48	72.53	257
Sept. 7	24.980	143	72.46	75	43.381	152	83.44	101	51.879	139	45.84	69	26.40	54	75.10	218
17	24.837	165	73.21	48	43.229	174	84.45	71	51.740	162	46.53	44	25.86	60	77.28	173
27	24.672	179	73.69	22	43.055	189	85.16	38	51.578	175	46.97	19	25.26	65	79.01	125
Okt. 7	24.493	183	73.91	4	42.866	194	85.54	5	51.403	179	47.16	5	24.61	66	80.26	72
17	24.310	178	73.87	31	42.672	189	85.59	29	51.224	175	47.11	30	23.95	67	80.98	17
27	24.132	164	73.56	57	42.483	176	85.30	61	51.049	162	46.81	55	23.28	65	81.15	39
Nov. 6	23.968	143	72.99	83	42.307	155	84.69	93	50.887	140	46.26	78	22.63	62	80.76	95
16	23.825	114	72.16	106	42.152	126	83.76	125	50.747	113	45.48	100	22.01	57	79.81	150
26	23.711	81	71.10	128	42.026	93	82.51	152	50.634	79	44.48	121	21.44	50	78.31	203
Dez. 6	23.630	45	69.82	147	41.933	56	80.99	176	50.555	43	43.27	138	20.94	41	76.28	250
16	23.585	6	68.35	162	41.877	17	79.23	196	50.512	5	41.89	151	20.53	31	73.78	289
26	23.579	33	66.73	171	41.860	23	77.27	209	50.507	34	40.38	159	20.22	20	70.89	319
36	23.612		65.02		41.883		75.18		50.541		38.79		20.02		67.70	
Mittl. Ort	21.565		47.90		40.052		57.24		48.407		21.14		23.38		45.05	
sec δ, tg δ	1.017		+0.185		1.054		+0.332		1.012		+0.153		2.940		+2.764	
a, *a'*	+2.9		+8.7		+2.7		+8.8		+2.9		+9.1		—0.2		+9.1	
b, *b'*	+0.01		+0.90		+0.01		+0.90		0.00		+0.89		+0.08		+0.89	

[1]) Die jährliche Parallaxe (0."204) ist bereits berücksichtigt.

*) Bei Stern 745) und 747) lies Juli 20.

Tag	749) β Aquilae AR.	Δ	749) β Aquilae Dekl.	Δ	748) ε Pavonis AR.	Δ	748) ε Pavonis Dekl.	Δ	750) ψ Cygni AR.	Δ	750) ψ Cygni Dekl.	Δ	751) ϑ¹ Sagittarii AR.	Δ	751) ϑ¹ Sagittarii Dekl.	Δ
1939	19h 52m		+6° 15′		19h 53m		−73° 4′		19h 54m		+52° 16′		19h 55m		−35° 26′	
	s		"		s		"		s		"		s		"	
Jan. 1	18.479	54	18.99	148	30.75	8	25.66	301	1.775	25	47.52	316	45.372	72	31.38	105
11	18.533	89	17.51	146	30.83	21	22.65	307	1.750	38	44.36	325	45.444	117	30.33	112
21	18.622	122	16.05	139	31.04	34	19.58	304	1.788	100	41.11	323	45.561	157	29.21	117
31	18.744	154	14.66	125	31.38	46	16.54	294	1.888	160	37.88	307	45.718	195	28.04	120
Febr. 10	18.898	182	13.41	104	31.84	56	13.60	278	2.048	218	34.81	280	45.913	228	26.84	123
20	19.080	207	12.37	78	32.40	66	10.82	255	2.266	269	32.01	241	46.141	258	25.61	123
März 2	19.287	230	11.59	47	33.06	73	8.27	227	2.535	314	29.60	194	46.399	284	24.38	123
12	19.517	250	11.12	14	33.79	80	6.00	195	2.849	353	27.66	138	46.683	307	23.15	121
22	19.767	266	10.98	21	34.59	84	4.05	160	3.202	382	26.28	77	46.990	326	21.94	118
Apr. 1	20.033	279	11.19	57	35.43	88	2.45	122	3.584	401	25.51	14	47.316	340	20.76	111
11	20.312	287	11.76	91	36.31	90	1.23	81	3.985	410	25.37	49	47.656	351	19.65	103
21	20.599	290	12.67	121	37.21	90	0.42	38	4.395	410	25.86	109	48.007	355	18.62	93
Mai 1	20.889	289	13.88	148	38.11	88	0.04	4	4.805	398	26.95	166	48.362	353	17.69	79
11	21.178	280	15.36	169	38.99	85	0.08	47	5.203	375	28.61	216	48.715	346	16.90	62
21	21.458	265	17.05	184	39.84	79	0.55	88	5.578	344	30.77	259	49.061	330	16.28	45
31	21.723	244	18.89	195	40.63	72	1.43	128	5.922	303	33.36	295	49.391	306	15.83	24
Juni 10	21.967	218	20.84	199	41.35	63	2.71	164	6.225	254	36.31	321	49.697	276	15.59	3
20	22.185	185	22.83	197	41.98	53	4.35	196	6.479	199	39.52	338	49.973	238	15.56	18
30	22.370	147	24.80	190	42.51	41	6.31	222	6.678	138	42.90	348	50.211	194	15.74	38
Juli 10	22.517	106	26.70	180	42.92	29	8.53	242	6.816	75	46.38	347	50.405	144	16.12	57
20	21 22.623	63	28.50	166	21 43.21	14	10.95	254	21 6.891	9	49.85	340	22 50.549	92	16.69	73
29	22.686	18	30.16	147	43.35	0	13.49	258	6.900	55	53.25	325	50.641	38	17.42	85
Aug. 8	22.704	26	31.63	128	43.35	14	16.07	253	6.845	117	56.50	302	50.679	17	18.27	94
18	22.678	67	32.91	107	43.21	27	18.60	239	6.728	175	59.52	273	50.662	69	19.21	98
28	22.611	103	33.98	84	42.94	40	20.99	216	6.553	227	62.25	239	50.593	115	20.19	97
Sept. 7	22.508	133	34.82	61	42.54	50	23.15	184	6.326	270	64.64	200	50.478	155	21.16	91
17	22.375	157	35.43	38	42.04	59	24.99	145	6.056	304	66.64	155	50.323	185	22.07	80
27	22.218	172	35.81	15	41.45	64	26.44	99	5.752	327	68.19	108	50.138	206	22.87	65
Okt. 7	22.046	178	35.96	8	40.81	68	27.43	48	5.425	340	69.27	59	49.932	215	23.52	47
17	21.868	174	35.88	30	40.13	68	27.91	5	5.085	340	69.86	6	49.717	211	23.99	27
27	21.694	161	35.58	52	39.45	65	27.86	60	4.745	328	69.92	48	49.506	197	24.26	5
Nov. 6	21.533	141	35.06	74	38.80	59	27.26	113	4.417	305	69.44	101	49.309	172	24.31	17
16	21.392	115	34.32	93	38.21	51	26.13	161	4.112	273	68.43	152	49.137	138	24.14	37
26	21.277	82	33.39	112	37.70	40	24.52	205	3.839	231	66.91	201	48.999	98	23.77	56
Dez. 6	21.195	46	32.27	128	37.30	28	22.47	242	3.608	181	64.90	244	48.901	53	23.21	72
16	21.149	10	30.99	140	37.02	15	20.05	270	3.427	125	62.46	280	48.848	6	22.49	86
26	21.139	28	29.59	148	36.87	1	17.35	290	3.302	66	59.66	307	48.842	42	21.63	97
36	21.167		28.11		36.86		14.45		3.236		56.59		48.884		20.66	
Mittl. Ort	18.999		11.08		34.14		27.53		3.188		34.48		46.110		34.90	
sec δ, tg δ	1.006		+0.110		3.435		−3.286		1.634		+1.293		1.227		−0.712	
a, *a′*	+2.9		+9.4		+6.9		+9.5		+1.6		+9.6		+3.9		+9.7	
b, *b′*	0.00		+0.88		−0.10		+0.88		+0.04		+0.88		−0.02		+0.88	

Scheinbare Sternörter 1939

Tag	752) γ Sagittae AR.	Diff.	752) γ Sagittae Dekl.	Diff.	754) δ Pavonis AR.	Diff.	754) δ Pavonis Dekl.	Diff.	756) ϑ Aquilae AR.	Diff.	756) ϑ Aquilae Dekl.	Diff.	759) ϰ Cephei AR.	Diff.	759) ϰ Cephei Dekl.	Diff.
1939	$19^h\ 56^m$		$+19°\ 19'$		$20^h\ 2^m$		$-66°\ 19'$		$20^h\ 8^m$		$-0°\ 59'$		$20^h\ 10^m$		$+77°\ 31'$	
Jan. 1	2.025	37	40.44	210	43.36	6	83.35	269	9.008	44	66.43	101	53.56	36	59.24	311
11	2.062	76	38.34	213	43.42	16	80.66	278	9.052	79	67.44	99	53.20	18	56.13	331
21	2.138	112	36.21	205	43.58	25	77.88	279	9.131	111	68.43	92	53.02	3	52.82	338
31	2.250	145	34.16	191	43.83	33	75.09	273	9.242	142	69.35	79	53.05	21	49.44	332
Febr. 10	2.395	178	32.25	166	44.16	41	72.36	261	9.384	171	70.14	61	53.26	40	46.12	313
20	2.573	207	30.59	135	44.57	48	69.75	245	9.555	197	70.75	40	53.66	57	42.99	281
März 2	2.780	232	29.24	97	45.05	53	67.30	222	9.752	221	71.15	15	54.23	72	40.18	239
12	3.012	254	28.27	55	45.58	58	65.08	195	9.973	242	71.30	13	54.95	85	37.79	188
22	3.266	272	27.72	9	46.16	62	63.13	166	10.215	260	71.17	43	55.80	95	35.91	129
Apr. 1	3.538	286	27.63	37	46.78	65	61.47	133	10.475	275	70.74	71	56.75	101	34.62	67
11	3.824	295	28.00	81	47.43	66	60.14	97	10.750	286	70.03	97	57.76	104	33.95	3
21	4.119	299	28.81	124	48.09	67	59.17	59	11.036	292	69.06	122	58.80	103	33.92	60
Mai 1	4.418	296	30.05	161	48.76	67	58.58	20	11.328	293	67.84	142	59.83	100	34.52	122
11	4.714	286	31.66	193	49.43	64	58.38	19	11.621	287	66.42	157	60.83	93	35.74	177
21	5.000	270	33.59	219	50.07	61	58.57	59	11.908	276	64.85	168	61.76	83	37.51	227
31	5.270	247	35.78	237	50.68	57	59.16	97	12.184	257	63.17	172	62.59	71	39.78	270
Juni 10	5.517	219	38.15	249	51.25	50	60.13	133	12.441	232	61.45	172	63.30	57	42.48	305
20	5.736	184	40.64	255	51.75	43	61.46	165	12.673	202	59.73	168	63.87	42	45.53	331
30	5.920	144	43.19	253	52.18	35	63.11	193	12.875	166	58.05	158	64.29	26	48.84	349
Juli 10	6.064	102	45.72	245	52.53	25	65.04	215	13.041	125	56.47	146	64.55	9	52.33	358
20	6.166	56	48.17	233	52.78	15	67.19	230	13.166	82	55.01	132	64.64	9	55.91	358
29	[22] 6.222	11	50.50	215	[23] 52.93	4	69.49	237	[25] 13.248	37	53.69	113	[25] 64.55	26	59.49	351
Aug. 8	6.233	34	52.65	193	52.97	6	71.86	237	13.285	7	52.56	94	64.29	41	63.00	336
18	6.199	77	54.58	168	52.91	16	74.23	228	13.278	49	51.62	76	63.88	57	66.36	314
28	6.122	114	56.26	140	52.75	26	76.51	210	13.229	87	50.86	56	63.31	70	69.50	285
Sept. 7	6.008	146	57.66	111	52.49	33	78.61	184	13.142	120	50.30	38	62.61	82	72.35	250
17	5.862	170	58.77	79	52.16	40	80.45	150	13.022	146	49.92	19	61.79	92	74.85	210
27	5.692	186	59.56	46	51.76	44	81.95	110	12.876	163	49.73	2	60.87	100	76.95	165
Okt. 7	5.506	192	60.02	13	51.32	47	83.05	65	12.713	170	49.71	13	59.87	105	78.60	114
17	5.314	190	60.15	21	50.85	48	83.70	16	12.543	169	49.84	30	58.82	107	79.74	62
27	5.124	179	59.94	55	50.37	45	83.86	34	12.374	160	50.14	44	57.75	107	80.36	6
Nov. 6	4.945	160	59.39	88	49.92	42	83.52	83	12.214	141	50.58	58	56.68	104	80.42	52
16	4.785	133	58.51	119	49.50	35	82.69	129	12.073	116	51.16	70	55.64	98	79.90	108
26	4.652	101	57.32	148	49.15	28	81.40	171	11.957	87	51.86	82	54.66	89	78.82	164
Dez. 6	4.551	66	55.84	174	48.87	19	79.69	208	11.870	53	52.68	92	53.77	78	77.18	215
16	4.485	28	54.10	194	48.68	10	77.61	236	11.817	17	53.60	99	52.99	64	75.03	259
26	4.457	12	52.16	208	48.58	0	75.25	257	11.800	19	54.59	104	52.35	47	72.44	297
36	4.469		50.08		48.58		72.68		11.819		55.63		51.88		69.47	
Mittl. Ort	2.622		30.89		45.62		84.66		9.478		73.54		58.71		42.96	
sec δ, tg δ	1.060		+0.351		2.492		−2.283		1.000		−0.018		4.631		+4.521	
a, *a'*	+2.7		+9.7		+5.7		+10.2		+3.1		+10.6		−2.0		+10.8	
b, *b'*	+0.01		+0.87		−0.08		+0.86		0.00		+0.85		+0.16		+0.84	

Tag	757) o^1 Cygni sq. AR.		757) o^1 Cygni sq. Dekl.		760) 24 Vulpeculae AR.		760) 24 Vulpeculae Dekl.	
1939	$20^h\ 11^m$		$+46^\circ\ 33'$		$20^h\ 14^m$		$+24^\circ\ 28'$	
	s		″		s		″	
Jan. 1	41.582	30	33.17	296	9.867	14	66.14	226
11	41.552	24	30.21	308	9.881	52	63.88	231
21	41.576	78	27.13	308	9.933	90	61.57	227
31	41.654	131	24.05	296	10.023	127	59.30	213
Febr. 10	41.785	181	21.09	271	10.150	161	57.17	191
20	41.966	228	18.38	237	10.311	193	55.26	160
März 2	42.194	271	16.01	193	10.504	222	53.66	122
12	42.465	307	14.08	140	10.726	249	52.44	78
22	42.772	337	12.68	83	10.975	271	51.66	30
Apr. 1	43.109	359	11.85	23	11.246	288	51.36	19
11	43.468	372	11.62	38	11.534	301	51.55	67
21	43.840	377	12.00	97	11.835	306	52.22	114
Mai 1	44.217	372	12.97	152	12.141	307	53.36	156
11	44.589	357	14.49	203	12.448	299	54.92	192
21	44.946	334	16.52	245	12.747	285	56.84	224
31	45.280	301	18.97	281	13.032	263	59.08	247
Juni 10	45.581	261	21.78	308	13.295	234	61.55	263
20	45.842	214	24.86	326	13.529	201	64.18	273
30	46.056	161	28.12	337	13.730	160	66.91	274
Juli 10	46.217	105	31.49	339	13.890	117	69.65	270
20	46.322	46	34.88	333	14.007	71	72.35	260
29	[26] 46.368	12	38.21	320	[26] 14.078	24	74.95	244
Aug. 8	46.356	70	41.41	300	14.102	23	77.39	223
18	46.286	125	44.41	273	14.079	67	79.62	198
28	46.161	173	47.14	241	14.012	108	81.60	169
Sept. 7	45.988	215	49.55	205	13.904	142	83.29	139
17	45.773	249	51.60	163	13.762	168	84.68	105
27	45.524	272	53.23	119	13.594	187	85.73	69
Okt. 7	45.252	287	54.42	71	13.407	198	86.42	33
17	44.965	290	55.13	21	13.209	199	86.75	4
27	44.675	282	55.34	30	13.010	190	86.71	42
Nov. 6	44.393	265	55.04	81	12.820	174	86.29	79
16	44.128	238	54.23	131	12.646	151	85.50	115
26	43.890	204	52.92	179	12.495	122	84.35	149
Dez. 6	43.686	163	51.13	222	12.373	88	82.86	178
16	43.523	115	48.91	258	12.285	51	81.08	203
26	43.408	65	46.33	286	12.234	13	79.05	221
36	43.343		43.47		12.221		76.84	
Mittl. Ort	42.643		19.55		10.457		55.30	
sec δ, tg δ	1.454		+1.056		1.099		+0.455	
a, *a′*	+1.9		+10.9		+2.6		+11.1	
b, *b′*	+0.04		+ 0.84		+0.02		+ 0.83	

Tag	761) α^2 Capricorni AR.		761) α^2 Capricorni Dekl.		765) γ Cygni AR.		765) γ Cygni Dekl.	
1939	$20^h\ 14^m$		$-12^\circ\ 43'$		$20^h\ 20^m$		$+40^\circ\ 3'$	
	s		″		s		″	
Jan. 1	39.820	44	61.32	30	1.478	22	51.08	276
11	39.864	79	61.62	26	1.456	26	48.32	287
21	39.943	113	61.88	18	1.482	72	45.45	288
31	40.056	144	62.06	7	1.554	119	42.57	276
Febr. 10	40.200	174	62.13	6	1.673	163	39.81	253
20	40.374	200	62.07	23	1.836	205	37.28	221
März 2	40.574	224	61.84	39	2.041	243	35.07	179
12	40.798	246	61.45	58	2.284	276	33.28	129
22	41.044	266	60.87	77	2.560	305	31.99	75
Apr. 1	41.310	281	60.10	94	2.865	326	31.24	17
11	41.591	294	59.16	109	3.191	341	31.07	40
21	41.885	301	58.07	122	3.532	348	31.47	96
Mai 1	42.186	303	56.85	131	3.880	346	32.43	149
11	42.489	299	55.54	135	4.226	336	33.92	196
21	42.788	289	54.19	135	4.562	318	35.88	237
31	43.077	272	52.84	130	4.880	291	38.25	270
Juni 10	43.349	247	51.54	123	5.171	256	40.95	295
20	43.596	216	50.31	112	5.427	215	43.90	314
30	43.812	181	49.19	98	5.642	169	47.04	322
Juli 10	43.993	140	48.21	81	5.811	118	50.26	324
20	44.133	95	47.40	65	5.929	64	53.50	317
29	[26] 44.228	49	46.75	47	[28] 5.993	11	56.67	305
Aug. 8	44.277	4	46.28	30	6.004	42	59.72	285
18	44.281	41	45.98	15	5.962	93	62.57	259
28	44.240	81	45.83	1	5.869	139	65.16	229
Sept. 7	44.159	116	45.82	11	5.730	178	67.45	194
17	44.043	143	45.93	20	5.552	210	69.39	155
27	43.900	162	46.13	28	5.342	233	70.94	113
Okt. 7	43.738	171	46.41	32	5.109	246	72.07	68
17	43.567	172	46.73	36	4.863	251	72.75	21
27	43.395	162	47.09	39	4.612	244	72.96	26
Nov. 6	43.233	144	47.48	39	4.368	229	72.70	74
16	43.089	119	47.87	41	4.139	206	71.96	121
26	42.970	89	48.28	40	3.933	175	70.75	166
Dez. 6	42.881	54	48.68	40	3.758	138	69.09	206
16	42.827	18	49.08	39	3.620	97	67.03	240
26	42.809	19	49.47	37	3.523	52	64.63	266
36	42.828		49.84		3.471		61.97	
Mittl. Ort	40.301		66.75		2.303		37.79	
sec δ, tg δ	1.025		−0.226		1.307		+0.841	
a, *a′*	+3.3		+11.1		+2.2		+11.5	
b, *b′*	−0.01		+ 0.83		+0.03		+ 0.82	

Tag	764) α Pavonis AR.		764) α Pavonis Dekl.		767) ϑ Cephei AR.		767) ϑ Cephei Dekl.		768) ε Delphini AR.		768) ε Delphini Dekl.		770) 73 Draconis AR.		770) 73 Draconis Dekl.	
1939	20h 20m		−56° 55′		20h 28m		+62° 47′		20h 30m		+11° 5′		20h 32m		+74° 44′	
Jan. 1	48.621	30	55.77	225	31.87	14	35.48	306	17.484	13	50.02	160	16.47	34	63.06	299
11	48.651	98	53.52	238	31.73	6	32.42	326	17.497	49	48.42	161	16.13	20	60.07	324
21	48.749	163	51.14	245	31.67	3	29.16	333	17.546	82	46.81	156	15.93	4	56.83	336
31	48.912	223	48.69	246	31.70	11	25.83	329	17.628	114	45.25	144	15.89	12	53.47	335
Febr. 10	49.135	278	46.23	241	31.81	19	22.54	311	17.742	146	43.81	125	16.01	27	50.12	322
20	49.413	328	43.82	233	32.00	28	19.43	280	17.888	175	42.56	99	16.28	41	46.90	294
März 2	49.741	373	41.49	220	32.28	34	16.63	240	18.063	202	41.57	68	16.69	54	43.96	256
12	50.114	412	39.29	202	32.62	41	14.23	189	18.265	227	40.89	32	17.23	66	41.40	208
22	50.526	446	37.27	181	33.03	46	12.34	131	18.492	250	40.57	5	17.89	75	39.32	153
Apr. 1	50.972	471	35.46	157	33.49	50	11.03	69	18.742	269	40.62	44	18.64	82	37.79	91
11	51.443	490	33.89	129	33.99	52	10.34	5	19.011	283	41.06	82	19.46	86	36.88	28
21	51.933	502	32.60	99	34.51	53	10.29	58	19.294	293	41.88	117	20.32	87	36.60	36
Mai 1	52.435	504	31.61	66	35.04	53	10.87	119	19.587	296	43.05	149	21.19	85	36.96	98
11	52.939	495	30.95	31	35.57	50	12.06	176	19.883	293	44.54	175	22.04	81	37.94	156
21	53.434	477	30.64	4	36.07	46	13.82	227	20.176	284	46.29	197	22.85	75	39.50	209
31	53.911	447	30.68	39	36.53	42	16.09	270	20.460	267	48.26	212	23.60	66	41.59	255
Juni 10	54.358	407	31.07	75	36.95	36	18.79	306	20.727	243	50.38	221	24.26	55	44.14	294
20	54.765	356	31.82	107	37.31	29	21.85	332	20.970	214	52.59	225	24.81	43	47.08	324
30	55.121	295	32.89	136	37.60	22	25.17	351	21.184	179	54.84	221	25.24	31	50.32	346
Juli 10	55.416	227	34.25	161	37.82	13	28.68	361	21.363	138	57.05	213	25.55	17	53.78	359
20	55.643	152	35.86	181	37.95	5	32.29	362	21.501	95	59.18	200	25.72	2	57.37	364
29*)	(28) 55.795	74	37.67	195	(30) 38.00	3	35.91	354	(30) 21.596	51	61.18	184	(31) 25.74	11	61.01	360
Aug. 8	55.869	5	39.62	201	37.97	12	39.45	340	21.647	6	63.02	164	25.63	25	64.61	349
18	55.864	83	41.63	201	37.85	19	42.85	319	21.653	38	64.66	142	25.38	38	68.10	331
28	55.781	154	43.64	191	37.66	27	46.04	290	21.615	77	66.08	118	25.00	49	71.41	305
Sept. 7	55.627	218	45.55	174	37.39	33	48.94	255	21.538	111	67.26	93	24.51	61	74.46	274
17	55.409	270	47.29	150	37.06	38	51.49	214	21.427	139	68.19	67	23.90	69	77.20	235
27	55.139	308	48.79	118	36.68	42	53.63	169	21.288	159	68.86	40	23.21	76	79.55	191
Okt. 7	54.831	331	49.97	82	36.26	45	55.32	120	21.129	171	69.26	14	22.45	82	81.46	143
17	54.500	338	50.79	42	35.81	46	56.52	67	20.958	173	69.40	13	21.63	85	82.89	90
27	54.162	327	51.21	0	35.35	46	57.19	12	20.785	167	69.27	39	20.78	86	83.79	35
Nov. 6	53.835	301	51.21	44	34.89	45	57.31	46	20.618	154	68.88	64	19.92	84	84.14	23
16	53.534	262	50.77	86	34.44	42	56.85	102	20.464	133	68.24	88	19.08	80	83.91	81
26	53.272	210	49.91	125	34.02	38	55.83	157	20.331	108	67.36	110	18.28	74	83.10	138
Dez. 6	53.062	149	48.66	159	33.64	33	54.26	208	20.223	77	66.26	130	17.54	66	81.72	192
16	52.913	83	47.07	188	33.31	26	52.18	253	20.146	44	64.96	147	16.88	56	79.80	241
26	52.830	15	45.19	211	33.05	19	49.65	289	20.102	10	63.49	158	16.32	43	77.39	281
36	52.815		43.08		32.86		46.76		20.092		61.91		15.89		74.58	
Mittl. Ort	50.070		56.26		33.69		18.98		17.917		40.88		20.15		45.28	
sec δ, tg δ	1.833		−1.536		2.187		+1.945		1.019		+0.196		3.801		+3.667	
a, a'	+4.7		+11.6		+1.0		+12.1		+2.9		+12.2		−0.8		+12.4	
b, b'	−0.06		+ 0.82		+0.08		+ 0.80		+0.01		+ 0.79		+0.15		+ 0.79	

*) Bei Stern 767), 768) und 770) lies Juli 30.

Tag	769) α Indi AR.		769) α Indi Dekl.		771) β Delphini AR.		771) β Delphini Dekl.	
1939	20h 33m		−47° 29′		20h 34m		+14° 22′	
	s		″		s		″	
Jan. 1	15.984	20	80.69	174	40.866	7	64.07	173
11	16.004	73	78.95	189	40.873	41	62.34	177
21	16.077	124	77.06	199	40.914	76	60.57	173
31	16.201	171	75.07	204	40.990	109	58.84	161
Febr. 10	16.372	215	73.03	207	41.099	141	57.23	142
20	16.587	256	70.96	205	41.240	171	55.81	116
März 2	16.843	294	68.91	200	41.411	200	54.65	83
12	17.137	327	66.91	191	41.611	226	53.82	46
22	17.464	356	65.00	178	41.837	250	53.36	7
Apr. 1	17.820	381	63.22	164	42.087	269	53.29	34
11	18.201	399	61.58	145	42.356	284	53.63	75
21	18.600	413	60.13	122	42.640	295	54.38	114
Mai 1	19.013	419	58.91	98	42.935	299	55.52	148
11	19.432	416	57.93	70	43.234	296	57.00	178
21	19.848	404	57.23	40	43.530	287	58.78	202
31	20.252	384	56.83	9	43.817	270	60.80	220
Juni 10	20.636	353	56.74	22	44.087	247	63.00	231
20	20.989	313	56.96	53	44.334	217	65.31	237
30	21.302	266	57.49	82	44.551	181	67.68	236
Juli 10	21.568	211	58.31	107	44.732	142	70.04	229
20	21.779	150	59.38	130	44.874	98	72.33	218
30	21.929	87	60.68	148	44.972	52	74.51	201
Aug. 8	[31] 22.016	21	62.16	159	[31] 45.024	8	76.52	182
18	22.037	43	63.75	164	45.032	36	78.34	160
28	21.994	103	65.39	163	44.996	76	79.94	135
Sept. 7	21.891	156	67.02	154	44.920	111	81.29	108
17	21.735	200	68.56	138	44.809	139	82.37	80
27	21.535	234	69.94	116	44.670	160	83.17	52
Okt. 7	21.301	254	71.10	89	44.510	172	83.69	23
17	21.047	261	71.99	57	44.338	176	83.92	6
27	20.786	255	72.56	23	44.162	171	83.86	35
Nov. 6	20.531	236	72.79	12	43.991	158	83.51	63
16	20.295	205	72.67	47	43.833	138	82.88	91
26	20.090	166	72.20	81	43.695	114	81.97	116
Dez. 6	19.924	119	71.39	111	43.581	83	80.81	138
16	19.805	68	70.28	137	43.498	51	79.43	157
26	19.737	15	68.91	159	43.447	17	77.86	171
36	19.722		67.32		43.430		76.15	
Mittl. Ort	16.988		81.15		41.299		54.29	
sec δ, tg δ	1.480		−1.092		1.032		+0.256	
a, a'	+4.2		+12.4		+2.8		+12.5	
b, b'	−0.05		+0.78		+0.01		+0.78	

Tag	773) υ Capricorni AR.		773) υ Capricorni Dekl.		774) α Delphini AR.		774) α Delphini Dekl.	
1939	20h 36m		−18° 20′		20h 36m		+15° 41′	
	s		″		s		″	
Jan. 1	34.310	25	72.96	5	47.847	3	54.36	179
11	34.335	59	72.91	13	47.850	38	52.57	182
21	34.394	94	72.78	23	47.888	73	50.75	179
31	34.488	126	72.55	34	47.961	106	48.96	168
Febr. 10	34.614	157	72.21	46	48.067	138	47.28	149
20	34.771	185	71.75	60	48.205	170	45.79	122
März 2	34.956	213	71.15	75	48.375	199	44.57	89
12	35.169	237	70.40	89	48.574	225	43.68	52
22	35.406	260	69.51	103	48.799	249	43.16	12
Apr. 1	35.666	280	68.48	116	49.048	269	43.04	31
11	35.946	295	67.32	125	49.317	285	43.35	72
21	36.241	307	66.07	132	49.602	296	44.07	112
Mai 1	36.548	312	64.75	136	49.898	300	45.19	147
11	36.860	312	63.39	134	50.198	297	46.66	178
21	37.172	305	62.05	129	50.495	288	48.44	204
31	37.477	290	60.76	121	50.783	272	50.48	223
Juni 10	37.767	269	59.55	108	51.055	249	52.71	236
20	38.036	240	58.47	93	51.304	219	55.07	241
30	38.276	204	57.54	75	51.523	183	57.48	241
Juli 10	38.480	164	56.79	56	51.706	142	59.89	236
20	38.644	120	56.23	37	51.848	99	62.25	225
30	38.764	73	55.86	17	51.947	54	64.50	208
Aug. 8	[1] 38.837	25	55.69	0	[1] 52.001	9	66.58	190
18	38.862	21	55.69	15	52.010	35	68.48	166
28	38.841	64	55.84	29	51.975	75	70.14	142
Sept. 7	38.777	102	56.13	39	51.900	111	71.56	115
17	38.675	133	56.52	45	51.789	140	72.71	86
27	38.542	156	56.97	48	51.649	160	73.57	57
Okt. 7	38.386	170	57.45	49	51.489	173	74.14	28
17	38.216	173	57.94	47	51.316	177	74.42	3
27	38.043	168	58.41	43	51.139	173	74.39	33
Nov. 6	37.875	153	58.84	38	50.966	160	74.06	63
16	37.722	132	59.22	31	50.806	141	73.43	91
26	37.590	103	59.53	25	50.665	116	72.52	117
Dez. 6	37.487	71	59.78	18	50.549	87	71.35	141
16	37.416	37	59.96	10	50.462	54	69.94	161
26	37.379	0	60.06	3	50.408	21	68.33	175
36	37.379		60.09		50.387		66.58	
Mittl. Ort	34.780		77.10		48.279		44.31	
sec δ, tg δ	1.054		−0.332		1.039		+0.281	
a, a'	+3.4		+12.7		+2.8		+12.7	
b, b'	−0.01		+0.78		+0.01		+0.77	

Scheinbare Sternörter 1939

Tag	777) α Cygni AR.		777) α Cygni Dekl.		775) β Pavonis AR.		775) β Pavonis Dekl.	
1939	$20^h\ 39^m$		$+45^\circ\ 3'$		$20^h\ 39^m$		$-66^\circ\ 24'$	
	s		"		s		"	
Jan. 1	20.270	58	56.27	276	26.91	3	89.54	266
11	20.212	9	53.51	293	26.88	5	86.88	284
21	20.203	42	50.58	298	26.93	15	84.04	293
31	20.245	94	47.60	292	27.08	23	81.11	296
Febr. 10	20.339	144	44.68	273	27.31	32	78.15	292
20	20.483	191	41.95	244	27.63	39	75.23	281
März 2	20.674	236	39.51	205	28.02	45	72.42	265
12	20.910	276	37.46	157	28.47	51	69.77	243
22	21.186	312	35.89	102	28.98	56	67.34	217
Apr. 1	21.498	339	34.87	46	29.54	61	65.17	186
11	21.837	359	34.41	14	30.15	63	63.31	153
21	22.196	370	34.55	73	30.78	65	61.78	115
Mai 1	22.566	372	35.28	129	31.43	66	60.63	75
11	22.938	365	36.57	179	32.09	66	59.88	34
21	23.303	347	38.36	224	32.75	63	59.54	8
31	23.650	322	40.60	263	33.38	60	59.62	51
Juni 10	23.972	287	43.23	294	33.98	55	60.13	91
20	24.259	244	46.17	316	34.53	48	61.04	130
30	24.503	196	49.33	329	35.01	41	62.34	164
Juli 10	24.699	143	52.62	336	35.42	32	63.98	194
20	24.842	86	55.98	335	35.74	22	65.92	217
30	[2] 24.928	29	59.33	325	[2] 35.96	12	68.09	233
Aug. 8	24.957	28	62.58	309	36.08	2	70.42	241
18	24.929	83	65.67	286	36.10	9	72.83	241
28	24.846	134	68.53	258	36.01	19	75.24	231
Sept. 7	24.712	177	71.11	224	35.82	28	77.55	212
17	24.535	215	73.35	186	35.54	36	79.67	184
27	24.320	243	75.21	144	35.18	42	81.51	149
Okt. 7	24.077	261	76.65	99	34.76	45	83.00	107
17	23.816	270	77.64	51	34.31	48	84.07	60
27	23.546	269	78.15	1	33.83	47	84.67	10
Nov. 6	23.277	257	78.16	50	33.36	45	84.77	42
16	23.020	238	77.66	100	32.91	41	84.35	92
26	22.782	210	76.66	149	32.50	34	83.43	140
Dez. 6	22.572	176	75.17	193	32.16	27	82.03	182
16	22.396	135	73.24	232	31.89	19	80.21	219
26	22.261	90	70.92	264	31.70	9	78.02	248
36	22.171		68.28		31.61		75.54	
Mittl. Ort	21.106		41.28		29.15		88.18	
sec δ, tg δ	1.416		+1.002		2.500		−2.292	
a, *a'*	+2.0		+12.8		+5.4		+12.8	
b, *b'*	+0.04		+ 0.77		−0.10		+ 0.77	

Tag	780) ε Cygni AR.		780) ε Cygni Dekl.		783) η Cephei AR.		783) η Cephei Dekl.	
1939	$20^h\ 43^m$		$+33^\circ\ 44'$		$20^h\ 44^m$		$+61^\circ\ 35'$	
	s		"		s		"	
Jan. 1	43.974	31	40.31	244	1.57	16	82.23	292
11	43.943	9	37.87	256	1.41	8	79.31	315
21	43.952	51	35.31	258	1.33	0	76.16	326
31	44.003	93	32.73	251	1.33	9	72.90	325
Febr. 10	44.096	133	30.22	232	1.42	16	69.65	311
20	44.229	172	27.90	203	1.58	23	66.54	284
März 2	44.401	209	25.87	167	1.81	31	63.70	246
12	44.610	242	24.20	122	2.12	38	61.24	198
22	44.852	272	22.98	72	2.50	43	59.26	143
Apr. 1	45.124	297	22.26	20	2.93	47	57.83	83
11	45.421	315	22.06	34	3.40	50	57.00	19
21	45.736	328	22.40	86	3.90	51	56.81	44
Mai 1	46.064	332	23.26	136	4.41	51	57.25	105
11	46.396	328	24.62	181	4.92	50	58.30	162
21	46.724	316	26.43	220	5.42	47	59.92	215
31	47.040	296	28.63	252	5.89	43	62.07	260
Juni 10	47.336	268	31.15	277	6.32	37	64.67	298
20	47.604	234	33.92	295	6.69	31	67.65	327
30	47.838	192	36.87	304	7.00	24	70.92	348
Juli 10	48.030	147	39.91	306	7.24	17	74.40	361
20	48.177	99	42.97	302	7.41	9	78.01	365
30	[3] 48.276	48	45.99	290	[3] 7.50	0	81.66	360
Aug. 8	48.324	2	48.89	273	7.50	8	85.26	349
18	48.322	51	51.62	251	7.42	15	88.75	329
28	48.271	96	54.13	223	7.27	22	92.04	303
Sept. 7	48.175	135	56.36	191	7.05	29	95.07	271
17	48.040	167	58.27	156	6.76	34	97.78	232
27	47.873	193	59.83	118	6.42	39	100.10	188
Okt. 7	47.680	209	61.01	77	6.03	41	101.98	141
17	47.471	215	61.78	35	5.62	43	103.39	89
27	47.256	214	62.13	9	5.19	43	104.28	34
Nov. 6	47.042	203	62.04	53	4.76	43	104.62	23
16	46.839	185	61.51	96	4.33	41	104.39	80
26	46.654	161	60.55	137	3.92	37	103.59	135
Dez. 6	46.493	130	59.18	175	3.55	32	102.24	188
16	46.363	96	57.43	208	3.23	27	100.36	235
26	46.267	58	55.35	234	2.96	21	98.01	274
36	46.209		53.01		2.75		95.27	
Mittl. Ort	44.549		26.91		3.13		64.83	
sec δ, tg δ	1.203		+0.668		2.103		+1.850	
a, *a'*	+2.4		+13.1		+1.2		+13.2	
b, *b'*	+0.03		+ 0.76		+0.08		+ 0.75	

Tag	781) ε Aquarii				784) λ Cygni				785) β Indi				786) 32 Vulpeculae			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$20^h\ 44^m$		$-9°\ 42'$		$20^h\ 45^m$		$+36°\ 15'$		$20^h\ 50^m$		$-58°\ 40'$		$20^h\ 51^m$		$+27°\ 49'$	
	s		"		s		"		s		"		s		"	
Jan. 1	22.115	14	67.41	45	1.280	39	70.56	252	1.796	28	70.98	228	57.110	27	41.41	220
11	22.129	48	67.86	39	1.241	3	68.04	265	1.768	40	68.70	246	57.083	9	39.21	232
21	22.177	80	68.25	30	1.244	47	65.39	268	1.808	108	66.24	260	57.092	47	36.89	233
31	22.257	112	68.55	17	1.291	89	62.71	261	1.916	173	63.64	266	57.139	85	34.56	225
Febr. 10	22.369	142	68.72	3	1.380	131	60.10	243	2.089	233	60.98	267	57.224	122	32.31	208
20	22.511	170	68.75	15	1.511	173	57.67	215	2.322	290	58.31	263	57.346	159	30.23	181
März 2	22.681	197	68.60	34	1.684	210	55.52	178	2.612	341	55.68	253	57.505	193	28.42	146
12	22.878	223	68.26	56	1.894	246	53.74	132	2.953	388	53.15	237	57.698	225	26.96	105
22	23.101	246	67.70	77	2.140	277	52.42	82	3.341	430	50.78	218	57.923	254	25.91	59
Apr. 1	23.347	266	66.93	98	2.417	303	51.60	29	3.771	464	48.60	195	58.177	279	25.32	9
11	23.613	282	65.95	117	2.720	322	51.31	27	4.235	492	46.65	167	58.456	298	25.23	40
21	23.895	295	64.78	132	3.042	334	51.58	81	4.727	512	44.98	136	58.754	312	25.63	89
Mai 1	24.190	302	63.46	144	3.376	338	52.39	132	5.239	522	43.62	102	59.066	318	26.52	135
11	24.492	302	62.02	152	3.714	335	53.71	179	5.761	521	42.60	65	59.384	316	27.87	176
21	24.794	296	60.50	155	4.049	322	55.50	219	6.282	510	41.95	27	59.700	307	29.63	211
31	25.090	283	58.95	153	4.371	301	57.69	253	6.792	487	41.68	13	60.007	291	31.74	241
Juni 10	25.373	263	57.42	147	4.672	273	60.22	280	7.279	451	41.81	51	60.298	267	34.15	263
20	25.636	235	55.95	137	4.945	237	63.02	299	7.730	405	42.32	88	60.565	235	36.78	277
30	25.871	202	54.58	124	5.182	194	66.01	310	8.135	347	43.20	123	60.800	197	39.55	285
Juli 10	26.073	163	53.34	107	5.376	148	69.11	313	8.482	279	44.43	154	60.997	155	42.40	286
20	26.236	121	52.27	89	5.524	98	72.24	309	8.761	205	45.97	180	61.152	110	45.26	280
30	26.357	76	51.38	70	5.622	47	75.33	299	8.966	124	47.77	199	61.262	61	48.06	267
Aug. 8	[3] 26.433	30	50.68	51	[3] 5.669	5	78.32	282	[4] 9.090	42	49.76	212	[5] 61.323	13	50.73	251
18	26.463	14	50.17	33	5.664	55	81.14	260	9.132	41	51.88	216	61.336	34	53.24	229
28	26.449	57	49.84	16	5.609	101	83.74	232	9.091	120	54.04	212	61.302	77	55.53	202
Sept. 7	26.392	93	49.68	0	5.508	141	86.06	200	8.971	190	56.16	200	61.225	115	57.55	172
17	26.299	123	49.68	14	5.367	175	88.06	165	8.781	252	58.16	179	61.110	147	59.27	139
27	26.176	146	49.82	24	5.192	200	89.71	125	8.529	301	59.95	151	60.963	172	60.66	105
Okt. 7	26.030	160	50.06	32	4.992	218	90.96	84	8.228	334	61.46	116	60.791	188	61.71	67
17	25.870	165	50.38	40	4.774	225	91.80	40	7.894	350	62.62	75	60.603	196	62.38	29
27	25.705	160	50.78	45	4.549	223	92.20	5	7.544	350	63.37	31	60.407	195	62.67	10
Nov. 6	25.545	148	51.23	48	4.326	214	92.15	51	7.194	334	63.68	14	60.212	185	62.57	50
16	25.397	129	51.71	51	4.112	196	91.64	96	6.860	302	63.54	60	60.027	169	62.07	89
26	25.268	103	52.22	53	3.916	171	90.68	139	6.558	257	62.94	104	59.858	147	61.18	126
Dez. 6	25.165	74	52.75	53	3.745	140	89.29	178	6.301	202	61.90	144	59.711	119	59.92	160
16	25.091	42	53.28	53	3.605	105	87.51	213	6.099	139	60.46	179	59.592	87	58.32	189
26	25.049	9	53.81	50	3.500	67	85.38	241	5.960	73	58.67	209	59.505	53	56.43	212
36	25.040		54.31		3.433		82.97		5.887		56.58		59.452		54.31	
Mittl. Ort	22.512		72.85		1.889		56.68		3.313		69.37		57.569		28.78	
sec δ, tg δ	1.015		−0.171		1.240		+0.734		1.924		−1.644		1.131		+0.528	
a, *a'*	+3.2		+13.2		+2.3		+13.2		+4.7		+13.5		+2.6		+13.7	
b, *b'*	−0.01		+ 0.75		+0.03		+ 0.75		−0.07		+ 0.74		+0.02		+ 0.73	

Scheinbare Sternörter 1939

Tag	788) ν Cygni AR.	Δ	788) ν Cygni Dekl.	Δ	790) ζ Microscopii AR.	Δ	790) ζ Microscopii Dekl.	Δ	793) 61 Cygni pr.[1]) AR.	Δ	793) 61 Cygni pr.[1]) Dekl.	Δ	794) ν Aquarii AR.	Δ	794) ν Aquarii Dekl.	Δ
1939	20h 54m		+40° 55′		20h 59m		−38° 51′		21h 4m		+38° 26′		21h 6m		−11° 36′	
Jan. 1	53.247 (s)	62	68.02 (″)	257	3.679 (s)	6	76.18 (″)	120	9.083 (s)	50	69.45 (″)	237	16.068 (s)	5	66.51 (″)	33
11	53.185	17	65.45	275	3.673	37	74.98	139	9.033	9	67.08	255	16.063	28	66.84	24
21	53.168	28	62.70	282	3.710	79	73.59	153	9.024	35	64.53	261	16.091	59	67.08	14
31	53.196	75	59.88	277	3.789	120	72.06	164	9.059	79	61.92	257	16.150	90	67.22	1
Febr. 10	53.271	121	57.11	261	3.909	158	70.42	174	9.138	123	59.35	242	16.240	121	67.23	14
20	53.392	166	54.50	235	4.067	195	68.68	179	9.261	166	56.93	217	16.361	151	67.09	32
März 2	53.558	209	52.15	198	4.262	230	66.89	183	9.427	208	54.76	181	16.512	180	66.77	51
12	53.767	249	50.17	154	4.492	262	65.06	184	9.635	246	52.95	138	16.692	207	66.26	70
22	54.016	284	48.63	103	4.754	292	63.22	181	9.881	281	51.57	89	16.899	232	65.56	91
Apr. 1	54.300	313	47.60	48	5.046	318	61.41	175	10.162	311	50.68	35	17.131	256	64.65	111
11	54.613	336	47.12	8	5.364	341	59.66	165	10.473	333	50.33	20	17.387	277	63.54	127
21	54.949	350	47.20	65	5.705	357	58.01	152	10.806	350	50.53	75	17.664	292	62.27	141
Mai 1	55.299	356	47.85	119	6.062	368	56.49	135	11.156	357	51.28	128	17.956	302	60.86	152
11	55.655	353	49.04	169	6.430	372	55.14	115	11.513	355	52.56	176	18.258	307	59.34	157
21	56.008	341	50.73	213	6.802	367	53.99	91	11.868	346	54.32	219	18.565	304	57.77	159
31	56.349	321	52.86	251	7.169	353	53.08	65	12.214	327	56.51	255	18.869	294	56.18	156
Juni 10	56.670	290	55.37	281	7.522	332	52.43	36	12.541	300	59.06	286	19.163	276	54.62	148
20	56.960	254	58.18	304	7.854	301	52.07	7	12.841	265	61.92	307	19.439	252	53.14	136
30	57.214	210	61.22	319	8.155	263	52.00	21	13.106	223	64.99	321	19.691	221	51.78	122
Juli 10	57.424	161	64.41	325	8.418	217	52.21	50	13.329	177	68.20	328	19.912	184	50.56	103
20	57.585	109	67.66	324	8.635	165	52.71	75	13.506	126	71.48	327	20.096	142	49.53	84
30	57.694	55	70.90	316	8.800	111	53.46	97	13.632	74	74.75	318	20.238	98	48.69	64
Aug. 8	57.749	0	74.06	302	8.911	53	54.43	115	13.706	21	77.93	303	20.336	52	48.05	43
18	57.749	52	77.08	281	8.964	4	55.58	128	13.727	30	80.96	283	20.388	6	47.62	23
28	57.697	101	79.89	254	8.960	58	56.86	134	13.697	78	83.79	257	20.394	37	47.39	6
Sept. 7	57.596	145	82.43	223	8.902	107	58.20	136	13.619	120	86.36	227	20.357	76	47.33	10
17	57.451	182	84.66	187	8.795	148	59.56	130	13.499	157	88.63	191	20.281	108	47.43	24
27	57.269	210	86.53	148	8.647	181	60.86	118	13.342	186	90.54	153	20.173	134	47.67	34
Okt. 7	57.059	230	88.01	104	8.466	204	62.04	100	13.156	205	92.07	111	20.039	151	48.01	42
17	56.829	240	89.05	59	8.262	214	63.04	79	12.951	216	93.18	67	19.888	159	48.43	47
27	56.589	242	89.64	12	8.048	214	63.83	54	12.735	218	93.85	22	19.729	159	48.90	50
Nov. 6	56.347	234	89.76	37	7.834	202	64.37	25	12.517	212	94.07	25	19.570	150	49.40	51
16	56.113	218	89.39	84	7.632	181	64.62	3	12.305	197	93.82	71	19.420	135	49.91	51
26	55.895	195	88.55	131	7.451	152	64.59	31	12.108	175	93.11	116	19.285	113	50.42	50
Dez. 6	55.700	165	87.24	175	7.299	116	64.28	58	11.933	148	91.95	158	19.172	87	50.92	48
16	55.535	130	85.49	213	7.183	77	63.70	84	11.785	114	90.37	195	19.085	57	51.40	44
26	55.405	90	83.36	244	7.106	35	62.86	106	11.671	77	88.42	225	19.028	27	51.84	38
36	55.315		80.92		7.071		61.80		11.594		86.17		19.001		52.22	
Mittl. Ort	53.881		52.94		4.391		76.26		9.624		54.66		16.411		71.18	
sec δ, tg δ	1.324		+0.867		1.284		−0.806		1.277		+0.794		1.021		−0.206	
a, *a′*	+2.2		+13.9		+3.8		+14.1		+2.3		+14.4		+3.3		+14.6	
b, *b′*	+0.04		+ 0.72		−0.04		+ 0.71		+0.04		+ 0.69		−0.01		+ 0.69	

[1]) Die jährliche Parallaxe (0″300) ist bereits berücksichtigt.

Tag	795) Br 2777 AR.		Dekl.		797) ζ Cygni AR.		Dekl.		800) α Equulei AR.		Dekl.		803) α Cephei AR.		Dekl.	
1939	$21^h\ 6^m$		+77° 52′		$21^h\ 10^m$		+29° 58′		$21^h\ 12^m$		+4° 59′		$21^h\ 17^m$		+62° 19′	
Jan. 1	41.46	58	66.51	267	19.950	48	46.32	218	46.236	17	48.64	117	6.28	21	55.20	266
11	40.88	41	63.84	301	19.902	13	44.14	232	46.219	13	47.47	117	6.07	15	52.54	297
21	40.47	23	60.83	322	19.889	25	41.82	237	46.232	44	46.30	112	5.92	7	49.57	317
31	40.24	3	57.61	332	19.914	64	39.45	232	46.276	75	45.18	102	5.85	2	46.40	324
Febr. 10	40.21	17	54.29	329	19.978	102	37.13	217	46.351	106	44.16	85	5.87	9	43.16	318
20	40.38	36	51.00	312	20.080	140	34.96	193	46.457	136	43.31	64	5.96	18	39.98	300
März 2	40.74	54	47.88	284	20.220	178	33.03	161	46.593	166	42.67	38	6.14	26	36.98	269
12	41.28	70	45.04	243	20.398	213	31.42	121	46.759	195	42.29	8	6.40	34	34.29	228
22	41.98	84	42.61	193	20.611	244	30.21	75	46.954	222	42.21	24	6.74	39	32.01	179
Apr. 1	42.82	95	40.68	138	20.855	273	29.46	27	47.176	247	42.45	57	7.13	45	30.22	122
11	43.77	102	39.30	77	21.128	297	29.19	24	47.423	268	43.02	88	7.58	49	29.00	62
21	44.79	107	38.53	15	21.425	313	29.43	73	47.691	284	43.90	119	8.07	52	28.38	1
Mai 1	45.86	107	38.38	48	21.738	323	30.16	121	47.975	295	45.09	146	8.59	53	28.39	63
11	46.93	105	38.86	109	22.061	325	31.37	164	48.270	299	46.55	168	9.12	52	29.02	122
21	47.98	98	39.95	165	22.386	319	33.01	203	48.569	297	48.23	186	9.64	51	30.24	177
31	48.96	90	41.60	216	22.705	304	35.04	234	48.866	287	50.09	197	10.15	48	32.01	226
Juni 10	49.86	79	43.76	260	23.009	282	37.38	260	49.153	270	52.06	203	10.63	43	34.27	270
20	50.65	65	46.36	298	23.291	253	39.98	278	49.423	245	54.09	204	11.06	37	36.97	304
30	51.30	51	49.34	328	23.544	216	42.76	288	49.668	215	56.13	199	11.43	31	40.01	332
Juli 10	51.81	34	52.62	349	23.760	174	45.64	292	49.883	179	58.12	190	11.74	23	43.33	351
20	52.15	17	56.11	362	23.934	129	48.56	289	50.062	138	60.02	177	11.97	16	46.84	362
30	52.32	0	59.73	367	24.063	80	51.45	280	50.200	95	61.79	160	12.13	7	50.46	364
Aug. 9	^{9} 52.32	16	63.40	364	^{10} 24.143	32	54.25	265	^{10} 50.295	50	63.39	140	^{11} 12.20	1	54.10	359
18	52.16	33	67.04	353	24.175	16	56.90	244	50.345	7	64.79	119	12.19	9	57.69	346
28	51.83	49	70.57	335	24.159	61	59.34	219	50.352	35	65.98	97	12.10	16	61.15	325
Sept. 7	51.34	63	73.92	310	24.098	101	61.53	191	50.317	73	66.95	74	11.94	23	64.40	299
17	50.71	76	77.02	278	23.997	136	63.44	159	50.244	105	67.69	52	11.71	29	67.39	265
27	49.95	86	79.80	240	23.861	163	65.03	124	50.139	129	68.21	29	11.42	35	70.04	226
Okt. 7	49.09	95	82.20	196	23.698	183	66.27	86	50.010	147	68.50	8	11.07	38	72.30	181
17	48.14	101	84.16	146	23.515	193	67.13	47	49.863	156	68.58	13	10.69	41	74.11	131
27	47.13	106	85.62	93	23.322	196	67.60	7	49.707	156	68.45	32	10.28	43	75.42	79
Nov. 6	46.07	106	86.55	35	23.126	190	67.67	33	49.551	150	68.13	51	9.85	43	76.21	23
16	45.01	104	86.90	23	22.936	177	67.34	74	49.401	137	67.62	68	9.42	42	76.44	35
26	43.97	100	86.67	83	22.759	158	66.60	113	49.264	117	66.94	84	9.00	40	76.09	93
Dez. 6	42.97	92	85.84	142	22.601	134	65.47	150	49.147	94	66.10	98	8.60	36	75.16	148
16	42.05	81	84.42	195	22.467	105	63.97	181	49.053	67	65.12	109	8.24	32	73.68	200
26	41.24	68	82.47	243	22.362	73	62.16	207	48.986	39	64.03	117	7.92	25	71.68	244
36	40.56		80.04		22.289		60.09		48.947		62.86		7.67		69.24	
Mittl. Ort	45.33		46.17		20.332		32.74		46.504		40.46		7.49		35.82	
sec δ, tg δ	4.763		+4.657		1.154		+0.577		1.004		+0.087		2.153		+1.907	
a, a'	−1.2		+14.6		+2.6		+14.8		+3.0		+14.9		+1.4		+15.2	
b, b'	+0.23		+ 0.69		+0.03		+ 0.67		0.00		+ 0.67		+0.10		+ 0.65	

Scheinbare Sternörter 1939

Tag	804) ι Pegasi				805) γ Pavonis				806) ζ Capricorni				809) β Cephei			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1939	$21^h\ 19^m$		$+19°\ 32'$		$21^h\ 21^m$		$-65°\ 38'$		$21^h\ 23^m$		$-22°\ 40'$		$21^h\ 27^m$		$+70°\ 17'$	
	s		"		s		"		s		"		s		"	
Jan. 1	15.618	38	44.53	176	23.38	12	42.36	248	10.898	21	34.28	28	51.13	36	54.45	254
11	15.580	6	42.77	186	23.26	5	39.88	275	10.877	12	34.00	42	50.77	26	51.91	290
21	15.574	27	40.91	187	23.21	3	37.13	294	10.889	45	33.58	57	50.51	16	49.01	315
31	15.601	60	39.04	180	23.24	12	34.19	306	10.934	78	33.01	72	50.35	5	45.86	328
Febr. 10	15.661	95	37.24	166	23.36	20	31.13	311	11.012	107	32.29	86	50.30	8	42.58	328
20	15.756	129	35.58	143	23.56	28	28.02	310	11.119	145	31.43	101	50.38	19	39.30	315
März 2	15.885	162	34.15	113	23.84	35	24.92	301	11.264	174	30.42	116	50.57	30	36.15	288
12	16.047	195	33.02	78	24.19	41	21.91	286	11.438	204	29.26	129	50.87	41	33.27	251
22	16.242	225	32.24	37	24.60	47	19.05	266	11.642	232	27.97	142	51.28	51	30.76	204
Apr. 1	16.467	252	31.87	5	25.07	53	16.39	241	11.874	259	26.55	151	51.79	58	28.72	150
11	16.719	275	31.92	48	25.60	57	13.98	210	12.133	283	25.04	158	52.37	64	27.22	91
21	16.994	293	32.40	90	26.17	60	11.88	176	12.416	301	23.46	162	53.01	68	26.31	28
Mai 1	17.287	304	33.30	130	26.77	63	10.12	137	12.717	315	21.84	161	53.69	70	26.03	34
11	17.591	309	34.60	165	27.40	63	8.75	95	13.032	323	20.23	156	54.39	70	26.37	95
21	17.900	306	36.25	196	28.03	63	7.80	52	13.355	323	18.67	147	55.09	67	27.32	153
31	18.206	296	38.21	221	28.66	61	7.28	6	13.678	316	17.20	134	55.76	63	28.85	205
Juni 10	18.502	277	40.42	239	29.27	58	7.22	38	13.994	301	15.86	117	56.39	57	30.90	251
20	18.779	252	42.81	250	29.85	53	7.60	81	14.295	277	14.69	96	56.96	49	33.41	291
30	19.031	219	45.31	255	30.38	46	8.41	123	14.572	247	13.73	74	57.45	41	36.32	323
Juli 10	19.250	181	47.86	255	30.84	39	9.64	161	14.819	210	12.99	50	57.86	31	39.55	347
20	19.431	140	50.41	248	31.23	30	11.25	192	15.029	167	12.49	26	58.17	21	43.02	362
30	19.571	95	52.89	235	31.53	21	13.17	218	15.196	121	12.23	2	58.38	10	46.64	369
Aug. 9	[12] 19.666	49	55.24	219	[12] 31.74	11	15.35	236	[13] 15.317	73	12.21	20	[14] 58.48	1	50.33	368
18	19.715	4	57.43	199	31.85	0	17.71	246	15.390	24	12.41	39	58.47	12	54.01	360
28	19.719	39	59.42	174	31.85	10	20.17	246	15.414	22	12.80	56	58.35	22	57.61	344
Sept. 7	19.680	78	61.16	148	31.75	19	22.63	236	15.392	65	13.36	68	58.13	31	61.05	320
17	19.602	111	62.64	120	31.56	28	24.99	217	15.327	102	14.04	76	57.82	40	64.25	290
27	19.491	137	63.84	89	31.28	35	27.16	190	15.225	132	14.80	79	57.42	47	67.15	253
Okt. 7	19.354	156	64.73	58	30.93	40	29.06	153	15.093	153	15.59	79	56.95	53	69.68	210
17	19.198	167	65.31	27	30.53	44	30.59	110	14.940	165	16.38	73	56.42	57	71.78	163
27	19.031	170	65.58	6	30.09	45	31.69	62	14.775	168	17.11	65	55.85	61	73.41	109
Nov. 6	18.861	166	65.52	38	29.64	45	32.31	11	14.607	163	17.76	55	55.24	61	74.50	53
16	18.695	153	65.14	69	29.19	42	32.42	42	14.444	149	18.31	41	54.63	62	75.03	6
26	18.542	137	64.45	99	28.77	38	32.00	93	14.295	129	18.72	28	54.01	59	74.97	66
Dez. 6	18.405	114	63.46	127	28.39	33	31.07	142	14.166	103	19.00	13	53.42	55	74.31	124
16	18.291	88	62.19	151	28.06	26	29.65	186	14.063	74	19.13	1	52.87	49	73.07	180
26	18.203	59	60.68	170	27.80	18	27.79	225	13.989	43	19.12	16	52.38	42	71.27	230
36	18.144		58.98		27.62		25.54		13.946		18.96		51.96		68.97	
Mittl. Ort	15.882		33.01		25.41		38.03		11.281		36.17		52.88		33.58	
sec δ, tg δ	1.061		+0.355		2.425		−2.209		1.084		−0.418		2.966		+2.792	
a, a'	+2.8		+15.3		+5.0		+15.4		+3.4		+15.5		+0.8		+15.8	
b, b'	+0.02		+ 0.65		−0.11		+ 0.64		−0.02		+ 0.63		+0.15		+ 0.62	

Tag	808) β Aquarii AR.		808) β Aquarii Dekl.		811) 74 Cygni AR.		811) 74 Cygni Dekl.	
1939	$21^h\ 28^m$		$-5°\ 50'$		$21^h\ 34^m$		$+40°\ 8'$	
	s		″		s		″	
Jan. 1	20.699	25	20.33	61	29.784	98	35.67	227
11	20.674	5	20.94	54	29.686	59	33.40	251
21	20.679	34	21.48	46	29.627	17	30.89	264
31	20.713	64	21.94	33	29.610	26	28.25	266
Febr. 10	20.777	95	22.27	17	29.636	71	25.59	258
20	20.872	125	22.44	2	29.707	118	23.01	239
März 2	20.997	156	22.42	24	29.825	163	20.62	210
12	21.153	185	22.18	48	29.988	207	18.52	172
22	21.338	212	21.70	72	30.195	248	16.80	126
Apr. 1	21.550	239	20.98	96	30.443	284	15.54	76
11	21.789	262	20.02	118	30.727	314	14.78	22
21	22.051	281	18.84	139	31.041	338	14.56	33
Mai 1	22.332	295	17.45	156	31.379	353	14.89	86
11	22.627	302	15.89	167	31.732	358	15.75	137
21	22.929	303	14.22	175	32.090	355	17.12	183
31	23.232	296	12.47	177	32.445	343	18.95	223
Juni 10	23.528	282	10.70	174	32.788	320	21.18	258
20	23.810	261	8.96	167	33.108	290	23.76	285
30	24.071	231	7.29	155	33.398	252	26.61	304
Juli 10	24.302	197	5.74	140	33.650	207	29.65	316
20	24.499	158	4.34	122	33.857	159	32.81	321
30	24.657	115	3.12	102	34.016	107	36.02	318
Aug. 9	[14] 24.772	70	2.10	81	[16] 34.123	53	39.20	309
18	24.842	26	1.29	59	34.176	1	42.29	293
28	24.868	17	0.70	39	34.177	50	45.22	271
Sept. 7	24.851	57	0.31	19	34.127	96	47.93	244
17	24.794	90	0.12	2	34.031	136	50.37	213
27	24.704	117	0.10	14	33.895	169	52.50	177
Okt. 7	24.587	137	0.24	27	33.726	195	54.27	137
17	24.450	149	0.51	38	33.531	213	55.64	96
27	24.301	152	0.89	48	33.318	222	56.60	50
Nov. 6	24.149	147	1.37	54	33.096	223	57.10	3
16	24.002	136	1.91	60	32.873	215	57.13	44
26	23.866	119	2.51	64	32.658	201	56.69	91
Dez. 6	23.747	97	3.15	66	32.457	180	55.78	135
16	23.650	72	3.81	67	32.277	154	54.43	176
26	23.578	45	4.48	65	32.123	122	52.67	212
36	23.533		5.13		32.001		50.55	
Mittl. Ort	20.935		25.85		30.126		19.31	
sec δ, tg δ	1.005		−0.102		1.308		+0.843	
a, *a′*	+3.2		+15.8		+2.4		+16.1	
b, *b′*	−0.01		+ 0.61		+0.05		+ 0.59	

Tag	810) ν Octantis AR.		810) ν Octantis Dekl.		815) ε Pegasi AR.		815) ε Pegasi Dekl.	
1939	$21^h\ 34^m$		$-77°\ 39'$		$21^h\ 41^m$		$+9°\ 35'$	
	s		″		s		″	
Jan. 1	41.45	39	52.53	283	11.240	43	49.04	129
11	41.06	23	49.70	312	11.197	16	47.75	132
21	40.83	7	46.58	335	11.181	14	46.43	130
31	40.76	10	43.23	347	11.195	44	45.13	123
Febr. 10	40.86	26	39.76	352	11.239	75	43.90	108
20	41.12	42	36.24	347	11.314	107	42.82	87
März 2	41.54	56	32.77	336	11.421	140	41.95	62
12	42.10	70	29.41	317	11.561	172	41.33	32
22	42.80	81	26.24	291	11.733	202	41.01	1
Apr. 1	43.61	92	23.33	260	11.935	231	41.02	37
11	44.53	101	20.73	224	12.166	256	41.39	72
21	45.54	107	18.49	182	12.422	277	42.11	106
Mai 1	46.61	112	16.67	137	12.699	293	43.17	137
11	47.73	114	15.30	89	12.992	301	44.54	164
21	48.87	114	14.41	39	13.293	303	46.18	186
31	50.01	110	14.02	11	13.596	298	48.04	204
Juni 10	51.11	105	14.13	61	13.894	284	50.08	215
20	52.16	96	14.74	110	14.178	262	52.23	220
30	53.12	85	15.84	155	14.440	235	54.43	220
Juli 10	53.97	72	17.39	196	14.675	201	56.63	214
20	54.69	56	19.35	230	14.876	162	58.77	203
30	55.25	39	21.65	257	15.038	120	60.80	189
Aug. 9	[16] 55.64	20	24.22	276	[17] 15.158	76	62.69	171
18	55.84	1	26.98	285	15.234	32	64.40	150
28	55.85	18	29.83	284	15.266	11	65.90	128
Sept. 7	55.67	37	32.67	272	15.255	50	67.18	103
17	55.30	53	35.39	250	15.205	83	68.21	79
27	54.77	68	37.89	217	15.122	111	69.00	55
Okt. 7	54.09	79	40.06	176	15.011	133	69.55	30
17	53.30	88	41.82	126	14.878	146	69.85	6
27	52.42	93	43.08	71	14.732	151	69.91	18
Nov. 6	51.49	94	43.79	13	14.581	150	69.73	40
16	50.55	92	43.92	47	14.431	141	69.33	61
26	49.63	85	43.45	107	14.290	128	68.72	81
Dez. 6	48.78	75	42.38	162	14.162	109	67.91	99
16	48.03	63	40.76	212	14.053	87	66.92	115
26	47.40	50	38.64	257	13.966	63	65.77	125
36	46.90		36.07		13.903		64.52	
Mittl. Ort	46.04		46.61		11.383		39.80	
sec δ, tg δ	4.680		−4.572		1.014		+0.169	
a, *a′*	+6.7		+16.2		+2.9		+16.5	
b, *b′*	−0.25		+ 0.59		+0.01		+ 0.57	

Scheinbare Sternörter 1939

Tag	819) δ Capricorni[1] AR.		Dekl.		821) π² Cygni AR.		Dekl.		822) γ Gruis AR.		Dekl.		823) 16 Pegasi AR.		Dekl.	
1939	21h 43m		−16° 23′		21h 44m		+49° 1′		21h 50m		−37° 38′		21h 50m		+25° 38′	
	s		″		s		″		s		″		s		″	
Jan. 1	40.328	35	75.58	8	31.863	145	54.10	233	13.912	62	72.29	98	16.991	72	27.89	181
11	40.293	6	75.66	5	31.718	102	51.77	263	13.850	25	71.31	124	16.919	43	26.08	196
21	40.287	24	75.61	20	31.616	53	49.14	282	13.825	12	70.07	145	16.876	10	24.12	204
31	40.311	54	75.41	35	31.563	1	46.32	291	13.837	50	68.62	165	16.866	24	22.08	203
Febr. 10	40.365	86	75.06	52	31.562	53	43.41	287	13.887	88	66.97	181	16.890	59	20.05	193
20	40.451	117	74.54	69	31.615	110	40.54	272	13.975	127	65.16	195	16.949	96	18.12	174
März 2	40.568	148	73.85	87	31.725	165	37.82	245	14.102	164	63.21	204	17.045	134	16.38	148
12	40.716	179	72.98	105	31.890	218	35.37	209	14.266	201	61.17	211	17.179	171	14.90	114
22	40.895	210	71.93	123	32.108	269	33.28	164	14.467	237	59.06	214	17.350	207	13.76	75
Apr. 1	41.105	237	70.70	138	32.377	313	31.64	113	14.704	271	56.92	213	17.557	240	13.01	31
11	41.342	263	69.32	151	32.690	349	30.51	57	14.975	302	54.79	208	17.797	268	12.70	14
21	41.605	285	67.81	162	33.039	378	29.94	1	15.277	327	52.71	198	18.065	292	12.84	60
Mai 1	41.890	301	66.19	168	33.417	396	29.95	58	15.604	348	50.73	183	18.357	310	13.44	104
11	42.191	311	64.51	170	33.813	404	30.53	114	15.952	361	48.90	165	18.667	319	14.48	145
21	42.502	315	62.81	167	34.217	401	31.67	165	16.313	367	47.25	142	18.986	321	15.93	181
31	42.817	311	61.14	158	34.618	386	33.32	212	16.680	363	45.83	115	19.307	315	17.74	213
Juni 10	43.128	299	59.56	147	35.004	362	35.44	252	17.043	352	44.68	85	19.622	300	19.87	238
20	43.427	279	58.09	131	35.366	328	37.96	285	17.395	330	43.83	54	19.922	277	22.25	256
30	43.706	251	56.78	112	35.694	285	40.81	311	17.725	300	43.29	20	20.199	248	24.81	269
Juli 10	43.957	218	55.66	90	35.979	235	43.92	329	18.025	262	43.09	13	20.447	211	27.50	273
20	44.175	178	54.76	67	36.214	181	47.21	339	18.287	217	43.22	45	20.658	170	30.23	272
30	44.353	135	54.09	42	36.395	122	50.60	342	18.504	166	43.67	75	20.828	126	32.95	265
Aug. 9	44.488	90	53.67	19	36.517	62	54.02	337	18.670	112	44.42	101	20.954	79	35.60	252
18*)	[18] 44.578	43	53.48	2	[18] 36.579	3	57.39	324	[20] 18.782	56	45.43	123	[20] 21.033	33	38.12	235
28	44.621	3	53.50	23	36.582	54	60.63	306	18.838	1	46.66	138	21.066	12	40.47	213
Sept. 7	44.618	44	53.73	40	36.528	108	63.69	282	18.839	50	48.04	147	21.054	54	42.60	188
17	44.574	81	54.13	52	36.420	155	66.51	251	18.789	97	49.51	151	21.000	90	44.48	160
27	44.493	112	54.65	62	36.265	195	69.02	215	18.692	136	51.02	147	20.910	121	46.08	129
Okt. 7	44.381	134	55.27	68	36.070	227	71.17	175	18.556	167	52.49	135	20.789	144	47.37	96
17	44.247	148	55.95	69	35.843	250	72.92	130	18.389	188	53.84	118	20.645	160	48.33	62
27	44.099	155	56.64	68	35.593	265	74.22	82	18.201	198	55.02	96	20.485	169	48.95	26
Nov. 6	43.944	152	57.32	64	35.328	270	75.04	31	18.003	198	55.98	70	20.316	171	49.21	10
16	43.792	142	57.96	57	35.058	266	75.35	20	17.805	189	56.68	41	20.145	165	49.11	47
26	43.650	127	58.53	49	34.792	254	75.15	73	17.616	172	57.09	11	19.980	154	48.64	82
Dez. 6	43.523	107	59.02	39	34.538	234	74.42	124	17.444	147	57.20	21	19.826	138	47.82	114
16	43.416	82	59.41	29	34.304	206	73.18	171	17.297	118	56.99	51	19.688	116	46.68	145
26	43.334	55	59.70	18	34.098	173	71.47	213	17.179	86	56.48	79	19.572	92	45.23	170
36	43.279		59.88		33.925		69.34		17.093		55.69		19.480		43.53	
Mittl. Ort	40.582		78.18		32.270		35.66		14.439		69.97		17.110		14.53	
sec δ, tg δ	1.042		−0.294		1.525		+1.152		1.263		−0.772		1.109		+0.480	
a, *a′*	+3.3		+16.6		+2.2		+16.6		+3.6		+16.9		+2.7		+16.9	
b, *b′*	−0.02		+ 0.56		+0.06		+ 0.56		−0.04		+ 0.54		+0.03		+ 0.54	

[1]) Die jährliche Parallaxe (0″.114) ist bereits berücksichtigt.

*) Bei Stern 822) und 823) lies Aug. 19.

Tag		827) α Aquarii AR.	Diff.	827) α Aquarii Dekl.	Diff.	828) ι Aquarii AR.	Diff.	828) ι Aquarii Dekl.	Diff.
1939		$22^h\ 2^m$		−0° 36′		$22^h\ 3^m$		−14° 9′	
Jan.	1	39.014	53	54.88	81	8.539	52	56.42	20
	11	38.961	27	55.69	77	8.487	25	56.62	7
	21	38.934	0	56.46	70	8.462	3	56.69	7
	31	38.934	28	57.16	59	8.465	32	56.62	23
Febr.	10	38.962	57	57.75	44	8.497	62	56.39	40
	20	39.019	89	58.19	25	8.559	93	55.99	59
März	2	39.108	120	58.44	2	8.652	125	55.40	79
	12	39.228	153	58.46	24	8.777	157	54.61	98
	22	39.381	184	58.22	51	8.934	189	53.63	118
Apr.	1	39.565	214	57.71	78	9.123	220	52.45	136
	11	39.779	242	56.93	105	9.343	247	51.09	152
	21	40.021	266	55.88	131	9.590	273	49.57	165
Mai	1	40.287	285	54.57	152	9.863	292	47.92	174
	11	40.572	298	53.05	170	10.155	305	46.18	178
	21	40.870	303	51.35	184	10.460	312	44.40	178
	31	41.173	302	49.51	191	10.772	312	42.62	173
Juni	10	41.475	293	47.60	194	11.084	303	40.89	163
	20	41.768	275	45.66	192	11.387	286	39.26	148
	30	42.043	251	43.74	184	11.673	261	37.78	131
Juli	10	42.294	221	41.90	172	11.934	230	36.47	109
	20	42.515	184	40.18	156	12.164	194	35.38	86
	30	42.699	143	38.62	137	12.358	152	34.52	62
Aug.	9	42.842	101	37.25	117	12.510	107	33.90	38
	19	42.943	57	36.08	95	12.617	62	33.52	14
	28	^{23}43.000	14	35.13	72	^{23}12.679	18	33.38	8
Sept.	7	43.014	26	34.41	50	12.697	25	33.46	28
	17	42.988	62	33.91	29	12.672	63	33.74	43
	27	42.926	91	33.62	9	12.609	94	34.17	55
Okt.	7	42.835	114	33.53	9	12.515	119	34.72	64
	17	42.721	131	33.62	25	12.396	136	35.36	69
	27	42.590	140	33.87	38	12.260	145	36.05	70
Nov.	6	42.450	140	34.25	51	12.115	147	36.75	68
	16	42.310	136	34.76	62	11.968	142	37.43	64
	26	42.174	126	35.38	70	11.826	129	38.07	57
Dez.	6	42.048	110	36.08	76	11.697	113	38.64	50
	16	41.938	91	36.84	81	11.584	93	39.14	40
	26	41.847	69	37.65	83	11.491	70	39.54	29
	36	41.778		38.48		11.421		39.83	
Mittl. Ort		39.083		61.17		8.691		59.02	
sec δ, tg δ		1.000		−0.011		1.031		−0.252	
a, a'		+3.1		+17.5		+3.2		+17.5	
b, b'		0.00		+ 0.49		−0.01		+ 0.49	

Tag		830) 20 Cephei AR.	Diff.	830) 20 Cephei Dekl.	Diff.	829) α Gruis AR.	Diff.	829) α Gruis Dekl.	Diff.
1939		$22^h\ 3^m$		+62° 29′		$22^h\ 4^m$		−47° 14′	
Jan.	1	8.59	28	36.66	221	23.128	102	92.43	138
	11	8.31	22	34.45	261	23.026	60	91.05	168
	21	8.09	15	31.84	291	22.966	16	89.37	195
	31	7.94	8	28.93	309	22.950	28	87.42	217
Febr.	10	7.86	0	25.84	315	22.978	73	85.25	235
	20	7.86	9	22.69	307	23.051	119	82.90	247
März	2	7.95	17	19.62	289	23.170	164	80.43	256
	12	8.12	26	16.73	258	23.334	208	77.87	258
	22	8.38	33	14.15	217	23.542	251	75.29	256
Apr.	1	8.71	39	11.98	167	23.793	291	72.73	249
	11	9.10	45	10.31	113	24.084	328	70.24	237
	21	9.55	50	9.18	54	24.412	360	67.87	220
Mai	1	10.05	52	8.64	7	24.772	385	65.67	198
	11	10.57	54	8.71	67	25.157	404	63.69	171
	21	11.11	54	9.38	125	25.561	413	61.98	139
	31	11.65	52	10.63	178	25.974	412	60.59	105
Juni	10	12.17	48	12.41	226	26.386	402	59.54	68
	20	12.65	44	14.67	268	26.788	381	58.86	29
	30	13.09	39	17.35	302	27.169	349	58.57	10
Juli	10	13.48	33	20.37	330	27.518	308	58.67	49
	20	13.81	25	23.67	349	27.826	258	59.16	86
	30	14.06	17	27.16	361	28.084	203	60.02	120
Aug.	9	14.23	9	30.77	364	28.287	142	61.22	148
	19	14.32	2	34.41	360	28.429	78	62.70	171
	28	^{23}14.34	6	38.01	348	^{23}28.507	14	64.41	186
Sept.	7	14.28	14	41.49	329	28.521	47	66.27	195
	17	14.14	21	44.78	303	28.474	102	68.22	195
	27	13.93	26	47.81	270	28.372	151	70.17	187
Okt.	7	13.67	31	50.51	232	28.221	190	72.04	170
	17	13.36	36	52.83	188	28.031	219	73.74	146
	27	13.00	39	54.71	138	27.812	236	75.20	116
Nov.	6	12.61	40	56.09	85	27.576	241	76.36	82
	16	12.21	41	56.94	28	27.335	235	77.18	43
	26	11.80	41	57.22	30	27.100	219	77.61	3
Dez.	6	11.39	39	56.92	87	26.881	195	77.64	37
	16	11.00	35	56.05	143	26.686	164	77.27	77
	26	10.65	32	54.62	195	26.522	128	76.50	114
	36	10.33		52.67		26.394		75.36	
Mittl. Ort		9.18		15.29		23.854		87.58	
sec δ, tg δ		2.165		+1.920		1.473		−1.082	
a, a'		+1.8		+17.5		+3.8		+17.5	
b, b'		+0.11		+ 0.49		−0.06		+ 0.48	

Scheinbare Sternörter 1939

Tag	834) ϑ Pegasi AR.		834) ϑ Pegasi Dekl.		835) π Pegasi AR.		835) π Pegasi Dekl.		837) 24 Cephei AR.		837) 24 Cephei Dekl.		836) ζ Cephei AR.		836) ζ Cephei Dekl.	
1939	$22^h\ 7^m$		$+5°\ 53'$		$22^h\ 7^m$		$+32°\ 52'$		$22^h\ 8^m$		$+72°\ 2'$		$22^h\ 8^m$		$+57°\ 53'$	
	s		"		s		"		s		"		s		"	
Jan. 1	7.343	59	57.24	106	16.520	101	57.01	189	37.23	49	48.52	209	43.725	234	80.88	216
11	7.284	34	56.18	107	16.419	72	55.12	210	36.74	40	46.43	254	43.491	185	78.72	254
21	7.250	7	55.11	105	16.347	39	53.02	224	36.34	29	43.89	289	43.306	129	76.18	282
31	7.243	21	54.06	96	16.308	3	50.78	229	36.05	17	41.00	313	43.177	65	73.36	300
Febr. 10	7.264	51	53.10	82	16.305	37	48.49	225	35.88	5	37.87	324	43.112	4	70.36	306
20	7.315	83	52.28	64	16.342	77	46.24	209	35.83	8	34.63	322	43.116	75	67.30	298
März 2	7.398	115	51.64	40	16.419	119	44.15	185	35.91	21	31.41	307	43.191	148	64.32	279
12	7.513	148	51.24	13	16.538	161	42.30	153	36.12	34	28.34	280	43.339	218	61.53	249
22	7.661	181	51.11	18	16.699	202	40.77	114	36.46	45	25.54	243	43.557	284	59.04	208
Apr. 1	7.842	212	51.29	49	16.901	239	39.63	69	36.91	55	23.11	195	43.841	344	56.96	160
11	8.054	241	51.78	81	17.140	273	38.94	22	37.46	64	21.16	141	44.185	396	55.36	106
21	8.295	265	52.59	112	17.413	301	38.72	27	38.10	71	19.75	83	44.581	436	54.30	48
Mai 1	8.560	285	53.71	140	17.714	322	38.99	76	38.81	74	18.92	22	45.017	464	53.82	11
11	8.845	298	55.11	164	18.036	335	39.75	123	39.55	76	18.70	39	45.481	479	53.93	70
21	9.143	305	56.75	183	18.371	340	40.98	165	40.31	76	19.09	99	45.960	480	54.63	126
31	9.448	303	58.58	198	18.711	335	42.63	203	41.07	74	20.08	156	46.440	468	55.89	178
Juni 10	9.751	294	60.56	206	19.046	321	44.66	234	41.81	68	21.64	207	46.908	443	57.67	226
20	10.045	277	62.62	210	19.367	300	47.00	259	42.49	62	23.71	252	47.351	407	59.93	266
30	10.322	252	64.72	208	19.667	269	49.59	278	43.11	55	26.23	291	47.758	359	62.59	299
Juli 10	10.574	222	66.80	200	19.936	233	52.37	290	43.66	45	29.14	323	48.117	303	65.58	325
20	10.796	186	68.80	188	20.169	191	55.27	294	44.11	34	32.37	347	48.420	241	68.83	344
30	10.982	146	70.68	173	20.360	146	58.21	293	44.45	23	35.84	364	48.661	173	72.27	354
Aug. 9	11.128	103	72.41	154	20.506	97	61.14	284	44.68	12	39.48	371	48.834	103	75.81	357
19	11.231	59	73.95	133	20.603	48	63.98	270	44.80	1	43.19	372	48.937	33	79.38	352
28	24 11.290	17	75.28	111	24 20.651	1	66.68	251	24 44.81	11	46.91	364	24 48.970	36	82.90	339
Sept. 7	11.307	22	76.39	88	20.652	43	69.19	228	44.70	22	50.55	348	48.934	101	86.29	320
17	11.285	59	77.27	64	20.609	82	71.47	200	44.48	31	54.03	326	48.833	161	89.49	295
27	11.226	89	77.91	41	20.527	117	73.47	169	44.17	41	57.29	297	48.672	214	92.44	262
Okt. 7	11.137	112	78.32	19	20.410	145	75.16	134	43.76	48	60.26	260	48.458	258	95.06	224
17	11.025	128	78.51	1	20.265	164	76.50	98	43.28	55	62.86	217	48.200	294	97.30	181
27	10.897	138	78.50	21	20.101	177	77.48	58	42.73	61	65.03	168	47.906	320	99.11	133
Nov. 6	10.759	141	78.29	40	19.924	184	78.06	17	42.12	64	66.71	114	47.586	336	100.44	80
16	10.618	137	77.89	57	19.740	182	78.23	24	41.48	65	67.85	56	47.250	342	101.24	26
26	10.481	128	77.32	72	19.558	174	77.99	64	40.83	65	68.41	4	46.908	337	101.50	30
Dez. 6	10.353	113	76.60	86	19.384	162	77.35	104	40.18	64	68.37	64	46.571	323	101.20	87
16	10.240	96	75.74	97	19.222	143	76.31	141	39.54	60	67.73	124	46.248	298	100.33	141
26	10.144	75	74.77	104	19.079	120	74.90	174	38.94	53	66.49	180	45.950	264	98.92	190
36	10.069		73.73		18.959		73.16		38.41		64.69		45.686		97.02	
Mittl. Ort	7.367		49.18		16.560		41.61		38.33		25.70		44.081		60.07	
sec δ, tg δ	1.005		+0.103		1.191		+0.646		3.243		+3.085		1.882		+1.594	
a, *a'*	+3.0		+17.7		+2.7		+17.7		+1.1		+17.7		+2.1		+17.7	
b, *b'*	+0.01		+ 0.47		+0.04		+ 0.47		+0.18		+ 0.47		+0.09		+ 0.47	

Tag	840) ϑ Aquarii AR.		Dekl.		841) α Tucanae AR.		Dekl.		842) γ Aquarii AR.		Dekl.		844) 3 Lacertae AR.		Dekl.	
1939	$22^h\ 13^m$		$-8°\ 4'$		$22^h\ 14^m$		$-60°\ 33'$		$22^h\ 18^m$		$-1°\ 41'$		$22^h\ 21^m$		$+51°\ 55'$	
	s		"		s		"		s		"		s		"	
Jan. 1	36.915	58	71.98	48	19.08	20	60.23	189	30.364	62	38.07	74	9.355	196	42.11	202
11	36.857	34	72.46	39	18.88	13	58.34	226	30.302	40	38.81	70	9.159	158	40.09	239
21	36.823	8	72.85	27	18.75	7	56.08	257	30.262	14	39.51	62	9.001	112	37.70	266
31	36.815	20	73.12	13	18.68	0	53.51	281	30.248	13	40.13	50	8.889	61	35.04	283
Febr. 10	36.835	49	73.25	4	18.68	6	50.70	298	30.261	42	40.63	35	8.828	4	32.21	289
20	36.884	80	73.21	23	18.74	12	47.72	309	30.303	73	40.98	17	8.824	55	29.32	282
März 2	36.964	112	72.98	44	18.86	19	44.63	313	30.376	105	41.15	6	8.879	117	26.50	264
12	37.076	144	72.54	66	19.05	25	41.50	310	30.481	138	41.09	31	8.996	178	23.86	236
22	37.220	177	71.88	90	19.30	31	38.40	301	30.619	171	40.78	57	9.174	236	21.50	198
Apr. 1	37.397	208	70.98	112	19.61	36	35.39	286	30.790	202	40.21	84	9.410	291	19.52	151
11	37.605	237	69.86	134	19.97	41	32.53	265	30.992	232	39.37	110	9.701	338	18.01	100
21	37.842	262	68.52	152	20.38	46	29.88	238	31.224	259	38.27	134	10.039	377	17.01	44
Mai 1	38.104	284	67.00	167	20.84	50	27.50	206	31.483	280	36.93	155	10.416	406	16.57	12
11	38.388	299	65.33	178	21.34	52	25.44	169	31.763	295	35.38	172	10.822	423	16.69	69
21	38.687	306	63.55	184	21.86	53	23.75	129	32.058	304	33.66	185	11.245	429	17.38	123
31	38.993	308	61.71	184	22.39	54	22.46	85	32.362	305	31.81	192	11.674	423	18.61	173
Juni 10	39.301	300	59.87	181	22.93	52	21.61	40	32.667	298	29.89	194	12.097	406	20.34	218
20	39.601	285	58.06	172	23.45	50	21.21	7	32.965	283	27.95	190	12.503	378	22.52	258
30	39.886	262	56.34	158	23.95	46	21.28	53	33.248	261	26.05	183	12.881	339	25.10	289
Juli 10	40.148	232	54.76	141	24.41	41	21.81	98	33.509	232	24.22	170	13.220	292	27.99	314
20	40.380	197	53.35	121	24.82	34	22.79	139	33.741	198	22.52	153	13.512	240	31.13	331
30	40.577	157	52.14	98	25.16	27	24.18	175	33.939	158	20.99	135	13.752	182	34.44	341
Aug. 9	40.734	115	51.16	75	25.43	19	25.93	205	34.097	116	19.64	113	13.934	121	37.85	343
19	40.849	70	50.41	52	25.62	11	27.98	228	34.213	73	18.51	90	14.055	60	41.28	338
28	[26] 40.919	27	49.89	29	[26] 25.73	2	30.26	242	[27] 34.286	30	17.61	67	[27] 14.115	1	44.66	326
Sept. 7	40.946	14	49.60	7	25.75	6	32.68	247	34.316	10	16.94	45	14.114	59	47.92	307
17	40.932	52	49.53	11	25.69	14	35.15	243	34.306	47	16.49	23	14.055	111	50.99	282
27	40.880	83	49.64	28	25.55	22	37.58	228	34.259	78	16.26	4	13.944	158	53.81	252
Okt. 7	40.797	108	49.92	42	25.33	27	39.86	203	34.181	103	16.22	13	13.786	199	56.33	216
17	40.689	126	50.34	51	25.06	31	41.89	171	34.078	121	16.35	29	13.587	230	58.49	174
27	40.563	137	50.85	58	24.75	35	43.60	132	33.957	132	16.64	42	13.357	254	60.23	128
Nov. 6	40.426	139	51.43	63	24.40	36	44.92	85	33.825	137	17.06	53	13.103	270	61.51	79
16	40.287	137	52.06	66	24.04	36	45.77	36	33.688	134	17.59	62	12.833	276	62.30	28
26	40.150	127	52.72	65	23.68	34	46.13	15	33.554	126	18.21	69	12.557	275	62.58	26
Dez. 6	40.023	113	53.37	64	23.34	31	45.98	66	33.428	114	18.90	74	12.282	264	62.32	79
16	39.910	95	54.01	60	23.03	28	45.32	116	33.314	97	19.64	76	12.018	246	61.53	130
26	39.815	75	54.61	54	22.75	22	44.16	160	33.217	78	20.40	77	11.772	220	60.23	178
36	39.740		55.15		22.53		42.56		33.139		21.17		11.552		58.45	
Mittl. Ort	36.976		75.96		20.39		52.83		30.364		43.77		9.445		22.11	
sec δ, tg δ	1.010		−0.142		2.035		−1.772		1.000		−0.030		1.622		+1.276	
a, a'	+3.2		+17.9		+4.1		+18.0		+3.1		+18.1		+2.4		+18.2	
b, b'	−0.01		+ 0.45		−0.11		+ 0.44		0.00		+ 0.43		+0.08		+ 0.42	

Scheinbare Sternörter 1939

Tag	848) 7 Lacertae AR.		848) 7 Lacertae Dekl.		850) η Aquarii AR.		850) η Aquarii Dekl.		852) 10 Lacertae AR.		852) 10 Lacertae Dekl.		855) ζ Pegasi AR.		855) ζ Pegasi Dekl.	
1939	$22^h\ 28^m$		$+49°\ 58'$		$22^h\ 32^m$		$-0°\ 25'$		$22^h\ 36^m$		$+38°\ 43'$		$22^h\ 38^m$		$+10°\ 30'$	
	s		″		s		″		s		″		s		″	
Jan. 1	46.485	189	25.71	193	13.411	71	51.44	77	31.410	139	73.24	175	25.290	82	53.39	113
11	46.296	153	23.78	229	13.340	51	52.21	74	31.271	113	71.49	205	25.208	61	52.26	118
21	46.143	112	21.49	257	13.289	27	52.95	67	31.158	81	69.44	226	25.147	38	51.08	119
31	46.031	64	18.92	275	13.262	0	53.62	56	31.077	44	67.18	239	25.109	12	49.89	115
Febr. 10	45.967	12	16.17	280	13.262	28	54.18	41	31.033	4	64.79	241	25.097	17	48.74	105
20	45.955	45	13.37	275	13.290	58	54.59	23	31.029	40	62.38	233	25.114	49	47.69	88
März 2	46.000	104	10.62	259	13.348	91	54.82	1	31.069	87	60.05	215	25.163	83	46.81	66
12	46.104	163	8.03	231	13.439	124	54.83	24	31.156	135	57.90	188	25.246	118	46.15	40
22	46.267	220	5.72	194	13.563	158	54.59	51	31.291	182	56.02	152	25.364	154	45.75	10
Apr. 1	46.487	273	3.78	150	13.721	192	54.08	78	31.473	227	54.50	110	25.518	189	45.65	23
11	46.760	320	2.28	99	13.913	223	53.30	104	31.700	267	53.40	63	25.707	222	45.88	57
21	47.080	360	1.29	45	14.136	251	52.26	130	31.967	303	52.77	14	25.929	252	46.45	91
Mai 1	47.440	389	0.84	11	14.387	274	50.96	152	32.270	331	52.63	37	26.181	275	47.36	121
11	47.829	408	0.95	66	14.661	292	49.44	171	32.601	349	53.00	87	26.456	294	48.57	151
21	48.237	417	1.61	119	14.953	303	47.73	185	32.950	360	53.87	133	26.750	305	50.08	175
31	48.654	414	2.80	169	15.256	306	45.88	193	33.310	361	55.20	176	27.055	309	51.83	195
Juni 10	49.068	398	4.49	213	15.562	301	43.95	197	33.671	351	56.96	215	27.364	304	53.78	209
20	49.466	373	6.62	252	15.863	288	41.98	196	34.022	333	59.11	246	27.668	292	55.87	217
30	49.839	339	9.14	284	16.151	268	40.02	188	34.355	305	61.57	271	27.960	271	58.04	220
Juli 10	50.178	295	11.98	308	16.419	241	38.14	177	34.660	270	64.28	290	28.231	243	60.24	217
20	50.473	245	15.06	326	16.660	207	36.37	162	34.930	229	67.18	301	28.474	210	62.41	210
30	50.718	190	18.32	335	16.867	169	34.75	143	35.159	183	70.19	306	28.684	173	64.51	197
Aug. 9	50.908	132	21.67	338	17.036	129	33.32	121	35.342	135	73.25	304	28.857	132	66.48	181
19	51.040	73	25.05	334	17.165	86	32.11	99	35.477	84	76.29	296	28.989	89	68.29	162
29	51.113	15	28.39	322	17.251	43	31.12	76	35.561	34	79.25	282	29.078	47	69.91	141
Sept. 7	[29] 51.128	41	31.61	304	[30] 17.294	3	30.36	53	[31] 35.595	13	82.07	262	[1] 29.125	6	71.32	118
17	51.087	92	34.65	280	17.297	34	29.83	31	35.582	57	84.69	238	29.131	31	72.50	93
27	50.995	138	37.45	250	17.263	67	29.52	10	35.525	95	87.07	209	29.100	63	73.43	69
Okt. 7	50.857	178	39.95	215	17.196	93	29.42	8	35.430	129	89.16	176	29.037	90	74.12	45
17	50.679	209	42.10	175	17.103	112	29.50	24	35.301	155	90.92	139	28.947	110	74.57	22
27	50.470	233	43.85	130	16.991	125	29.74	39	35.146	175	92.31	100	28.837	124	74.79	1
Nov. 6	50.237	249	45.15	83	16.866	132	30.13	51	34.971	187	93.31	58	28.713	133	74.78	23
16	49.988	257	45.98	32	16.734	131	30.64	61	34.784	193	93.89	13	28.580	134	74.55	44
26	49.731	257	46.30	20	16.603	127	31.25	69	34.591	193	94.02	31	28.446	131	74.11	64
Dez. 6	49.474	249	46.10	72	16.476	116	31.94	75	34.398	186	93.71	75	28.315	123	73.47	81
16	49.225	234	45.38	122	16.360	103	32.69	79	34.212	174	92.96	118	28.192	111	72.66	96
26	48.991	210	44.16	169	16.257	86	33.48	80	34.038	157	91.78	156	28.081	95	71.70	110
36	48.781		42.47		16.171		34.28		33.881		90.22		27.986		70.60	
Mittl. Ort	46.470		5.98		13.337		57.23		31.250		56.06		25.133		44.34	
sec δ, tg δ	1.555		+1.191		1.000		−0.008		1.282		+0.802		1.017		+0.186	
a, *a′*	+2.5		+18.5		+3.1		+18.6		+2.7		+18.7		+3.0		+18.8	
b, *b′*	+0.07		+0.39		0.00		+0.37		+0.05		+0.36		+0.01		+0.35	

856) β Gruis

Tag	AR.		Dekl.	
1939	22h 39m		−47° 11′	
	s		"	
Jan. 1	1.360	140	83.09	115
11	1.220	105	81.94	151
21	1.115	67	80.43	183
31	1.048	25	78.60	211
Febr. 10	1.023	18	76.49	234
20	1.041	64	74.15	253
März 2	1.105	109	71.62	266
12	1.214	155	68.96	274
22	1.369	202	66.22	277
Apr. 1	1.571	247	63.45	274
11	1.818	289	60.71	265
21	2.107	327	58.06	251
Mai 1	2.434	361	55.55	231
11	2.795	386	53.24	207
21	3.181	403	51.17	177
31	3.584	411	49.40	142
Juni 10	3.995	408	47.98	104
20	4.403	395	46.94	64
30	4.798	371	46.30	22
Juli 10	5.169	336	46.08	21
20	5.505	294	46.29	62
30	5.799	242	46.91	100
Aug. 9	6.041	185	47.91	135
19	6.226	124	49.26	164
29	6.350	62	50.90	187
Sept. 7	6.412	0	52.77	201
17	6.412	59	54.78	208
27	6.353	111	56.86	206
Okt. 7	6.242	156	58.92	196
17	6.086	191	60.88	176
27	5.895	216	62.64	150
Nov. 6	5.679	230	64.14	116
16	5.449	234	65.30	79
26	5.215	227	66.09	38
Dez. 6	4.988	212	66.47	4
16	4.776	190	66.43	47
26	4.586	162	65.96	88
36	4.424		65.08	
Mittl. Ort	1.917		76.34	
sec δ, tg δ	1.472		−1.080	
a, a′	+3.6		+18.8	
b, b′	−0.07		+ 0.35	

857) η Pegasi

Tag	AR.		Dekl.	
1939	22h 40m		+29° 54′	
	s		"	
Jan. 1	8.598	115	20.42	159
11	8.483	91	18.83	182
21	8.392	64	17.01	197
31	8.328	33	15.04	205
Febr. 10	8.295	2	12.99	203
20	8.297	40	10.96	193
März 2	8.337	81	9.03	173
12	8.418	124	7.30	146
22	8.542	165	5.84	112
Apr. 1	8.707	206	4.72	73
11	8.913	244	3.99	29
21	9.157	276	3.70	16
Mai 1	9.433	303	3.86	62
11	9.736	322	4.48	106
21	10.058	333	5.54	146
31	10.391	336	7.00	183
Juni 10	10.727	329	8.83	215
20	11.056	313	10.98	239
30	11.369	289	13.37	259
Juli 10	11.658	258	15.96	272
20	11.916	221	18.68	277
30	12.137	180	21.45	277
Aug. 9	12.317	135	24.22	271
19	12.452	88	26.93	259
29	12.540	43	29.52	243
Sept. 7	12.583	1	31.95	222
17	12.582	41	34.17	197
27	12.541	77	36.14	170
Okt. 7	12.464	107	37.84	138
17	12.357	131	39.22	106
27	12.226	148	40.28	69
Nov. 6	12.078	158	40.97	34
16	11.920	164	41.31	4
26	11.756	163	41.27	42
Dez. 6	11.593	156	40.85	78
16	11.437	145	40.07	113
26	11.292	130	38.94	145
36	11.162		37.49	
Mittl. Ort	8.396		5.61	
sec δ, tg δ	1.154		+0.575	
a, a′	+2.8		+18.8	
b, b′	+0.04		+ 0.34	

859) λ Pegasi

Tag	AR.		Dekl.	
1939	22h 43m		+23° 14′	
	s		"	
Jan. 1	35.656	102	51.64	144
11	35.554	81	50.20	160
21	35.473	56	48.60	171
31	35.417	28	46.89	176
Febr. 10	35.389	4	45.13	171
20	35.393	40	43.42	158
März 2	35.433	77	41.84	139
12	35.510	116	40.45	112
22	35.626	156	39.33	79
Apr. 1	35.782	194	38.54	42
11	35.976	231	38.12	1
21	36.207	262	38.11	40
Mai 1	36.469	288	38.51	81
11	36.757	308	39.32	120
21	37.065	319	40.52	155
31	37.384	323	42.07	187
Juni 10	37.707	318	43.94	213
20	38.025	304	46.07	232
30	38.329	282	48.39	247
Juli 10	38.611	254	50.86	254
20	38.865	219	53.40	256
30	39.084	179	55.96	252
Aug. 9	39.263	137	58.48	243
19	39.400	93	60.91	228
29	39.493	49	63.19	210
Sept. 7	39.542	7	65.29	189
17	39.549	32	67.18	164
27	39.517	66	68.82	137
Okt. 7	39.451	95	70.19	109
17	39.356	117	71.28	79
27	39.239	134	72.07	47
Nov. 6	39.105	144	72.54	15
16	38.961	148	72.69	17
26	38.813	147	72.52	48
Dez. 6	38.666	141	72.04	79
16	38.525	130	71.25	107
26	38.395	116	70.18	133
36	38.279		68.85	
Mittl. Ort	35.435		38.76	
sec δ, tg δ	1.088		+0.430	
a, a′	+2.9		+18.9	
b, b′	+0.03		+ 0.33	

860) ε Gruis

Tag	AR.		Dekl.	
1939	22h 44m		−51° 37′	
	s		"	
Jan. 1	52.048	169	85.82	128
11	51.879	130	84.54	167
21	51.749	88	82.87	202
31	51.661	43	80.85	232
Febr. 10	51.618	5	78.53	255
20	51.623	54	75.98	274
März 2	51.677	104	73.24	287
12	51.781	156	70.37	294
22	51.937	207	67.43	294
Apr. 1	52.144	256	64.49	289
11	52.400	303	61.60	279
21	52.703	345	58.81	262
Mai 1	53.048	381	56.19	239
11	53.429	411	53.80	211
21	53.840	430	51.69	178
31	54.270	440	49.91	140
Juni 10	54.710	438	48.51	99
20	55.148	426	47.52	55
30	55.574	401	46.97	11
Juli 10	55.975	366	46.86	33
20	56.341	320	47.19	77
30	56.661	267	47.96	118
Aug. 9	56.928	205	49.14	153
19	57.133	140	50.67	183
29	57.273	71	52.50	207
Sept. 7	57.344	4	54.57	221
17	57.348	60	56.78	227
27	57.288	118	59.05	224
Okt. 7	57.170	169	61.29	211
17	57.001	210	63.40	189
27	56.791	239	65.29	160
Nov. 6	56.552	257	66.89	124
16	56.295	263	68.13	82
26	56.032	259	68.95	38
Dez. 6	55.773	244	69.33	9
16	55.529	221	69.24	55
26	55.308	191	68.69	99
36	55.117		67.70	
Mittl. Ort	52.725		77.94	
sec δ, tg δ	1.611		−1.263	
a, a′	+3.6		+19.0	
b, b′	−0.08		+ 0.32	

Scheinbare Sternörter 1939

Tag	863) ι Cephei AR.	Δ	863) ι Cephei Dekl.	Δ	864) λ Aquarii AR.	Δ	864) λ Aquarii Dekl.	Δ	865) ρ Indi AR.	Δ	865) ρ Indi Dekl.	Δ	866) δ Aquarii AR.	Δ	866) δ Aquarii Dekl.	Δ
1939	22h 47m		+65° 52′		22h 49m		−7° 53′		22h 50m		−70° 23′		22h 51m		−16° 8′	
Jan. 1	30.16 s	39	68.19″	169	26.103 s	82	73.93″	49	24.50 s	40	71.73″	193	24.935 s	87	43.95″	20
11	29.77	33	66.50	218	26.021	62	74.42	39	24.10	33	69.80	238	24.848	66	44.15	2
21	29.44	27	64.32	258	25.959	40	74.81	27	23.77	24	67.42	277	24.782	43	44.17	17
31	29.17	19	61.74	288	25.919	15	75.08	11	23.53	16	64.65	309	24.739	17	44.00	35
Febr. 10	28.98	10	58.86	305	25.904	12	75.19	6	23.37	6	61.56	331	24.722	11	43.65	56
20	28.88	1	55.81	312	25.916	42	75.13	25	23.31	4	58.25	346	24.733	41	43.09	77
März 2	28.87	8	52.69	304	25.958	74	74.88	47	23.35	13	54.79	354	24.774	74	42.32	97
12	28.95	18	49.65	285	26.032	108	74.41	70	23.48	23	51.25	353	24.848	109	41.35	118
22	29.13	28	46.80	255	26.140	144	73.71	93	23.71	33	47.72	345	24.957	144	40.17	139
Apr. 1	29.41	36	44.25	215	26.284	178	72.78	116	24.04	41	44.27	329	25.101	179	38.78	157
11	29.77	44	42.10	166	26.462	211	71.62	137	24.45	49	40.98	307	25.280	213	37.21	172
21	30.21	51	40.44	112	26.673	241	70.25	157	24.94	57	37.91	279	25.493	245	35.49	185
Mai 1	30.72	56	39.32	55	26.914	268	68.68	173	25.51	63	35.12	243	25.738	272	33.64	194
11	31.28	59	38.77	4	27.182	288	66.95	185	26.14	67	32.69	203	26.010	293	31.70	197
21	31.87	60	38.81	63	27.470	302	65.10	191	26.81	71	30.66	158	26.303	308	29.73	196
31	32.47	60	39.44	119	27.772	309	63.19	193	27.52	73	29.08	110	26.611	316	27.77	191
Juni 10	33.07	58	40.63	172	28.081	307	61.26	190	28.25	73	27.98	59	26.927	315	25.86	179
20	33.65	55	42.35	220	28.388	298	59.36	182	28.98	71	27.39	6	27.242	306	24.07	163
30	34.20	50	44.55	262	28.686	280	57.54	169	29.69	67	27.33	46	27.548	288	22.44	142
Juli 10	34.70	44	47.17	297	28.966	255	55.85	151	30.36	62	27.79	96	27.836	263	21.02	119
20	35.14	37	50.14	326	29.221	224	54.34	130	30.98	54	28.75	144	28.099	232	19.83	93
30	35.51	29	53.40	346	29.445	187	53.04	108	31.52	44	30.19	188	28.331	195	18.90	65
Aug. 9	35.80	20	56.86	360	29.632	146	51.96	83	31.96	34	32.07	224	28.526	154	18.25	37
19	36.00	12	60.46	365	29.778	105	51.13	57	32.30	23	34.31	253	28.680	110	17.88	9
29	36.12	4	64.11	362	29.883	62	50.56	33	32.53	11	36.84	273	28.790	66	17.79	17
Sept. 7	[3] 36.16	5	67.73	353	[4] 29.945	20	50.23	9	[4] 32.64	2	39.57	283	[4] 28.856	22	17.96	40
17	36.11	13	71.26	336	29.965	18	50.14	12	32.62	14	42.40	282	28.878	18	18.36	59
27	35.98	20	74.62	312	29.947	52	50.26	30	32.48	25	45.22	270	28.860	53	18.95	74
Okt. 7	35.78	27	77.74	280	29.895	81	50.56	45	32.23	35	47.92	247	28.807	84	19.69	85
17	35.51	33	80.54	242	29.814	102	51.01	57	31.88	43	50.39	215	28.723	107	20.54	90
27	35.18	38	82.96	198	29.712	118	51.58	64	31.45	50	52.54	172	28.616	124	21.44	92
Nov. 6	34.80	41	84.94	148	29.594	127	52.22	70	30.95	54	54.26	123	28.492	133	22.36	89
16	34.39	44	86.42	95	29.467	130	52.92	72	30.41	56	55.49	68	28.359	137	23.25	82
26	33.95	45	87.37	37	29.337	128	53.64	72	29.85	56	56.17	11	28.222	135	24.07	73
Dez. 6	33.50	45	87.74	23	29.209	121	54.36	69	29.29	54	56.28	48	28.087	127	24.80	61
16	33.05	44	87.51	82	29.088	109	55.05	63	28.75	50	55.80	106	27.960	114	25.41	47
26	32.61	42	86.69	139	28.979	94	55.68	57	28.25	45	54.74	159	27.846	100	25.88	31
36	32.19		85.30		28.885		56.25		27.80		53.15		27.746		26.19	
Mittl. Ort	30.15		45.22		25.990		77.00		26.53		61.09		24.884		44.45	
sec δ, tg δ	2.447		+2.233		1.010		−0.139		2.981		−2.808		1.041		−0.290	
a, *a′*	+2.1		+19.0		+3.1		+19.1		+4.2		+19.1		+3.2		+19.2	
b, *b′*	+0.14		+ 0.31		−0.01		+ 0.30		−0.18		+ 0.30		−0.02		+ 0.29	

Tag	867) α Pisc. austr. AR.		867) Dekl.		869) ο Andromedae AR.		869) Dekl.	
1939	22ʰ 54ᵐ		−29° 56′		22ʰ 59ᵐ		+41° 59′	
Jan. 1	16.901	104	48.97	33	6.951	166	69.51	159
11	16.797	81	48.64	62	6.785	142	67.92	193
21	16.716	54	48.02	88	6.643	112	65.99	219
31	16.662	25	47.14	114	6.531	77	63.80	237
Febr. 10	16.637	6	46.00	138	6.454	36	61.43	245
20	16.643	39	44.62	159	6.418	9	58.98	243
März 2	16.682	76	43.03	179	6.427	59	56.55	229
12	16.758	114	41.24	195	6.486	111	54.26	207
22	16.872	152	39.29	209	6.597	162	52.19	176
Apr. 1	17.024	190	37.20	220	6.759	211	50.43	136
11	17.214	226	35.00	225	6.970	258	49.07	92
21	17.440	261	32.75	226	7.228	299	48.15	43
Mai 1	17.701	291	30.49	223	7.527	333	47.72	7
11	17.992	314	28.26	214	7.860	357	47.79	58
21	18.306	332	26.12	200	8.217	372	48.37	106
31	18.638	341	24.12	180	8.589	377	49.43	152
Juni 10	18.979	340	22.32	156	8.966	372	50.95	194
20	19.319	332	20.76	128	9.338	357	52.89	229
30	19.651	315	19.48	97	9.695	332	55.18	258
Juli 10	19.966	289	18.51	63	10.027	300	57.76	282
20	20.255	255	17.88	29	10.327	261	60.58	298
30	20.510	215	17.59	6	10.588	215	63.56	308
Aug. 9	20.725	171	17.65	40	10.803	166	66.64	310
19	20.896	123	18.05	70	10.969	115	69.74	306
29	21.019	74	18.75	97	11.084	65	72.80	296
	5				6			
Sept. 7	21.093	25	19.72	118	11.149	15	75.76	281
17	21.118	20	20.90	134	11.164	31	78.57	259
27	21.098	61	22.24	144	11.133	73	81.16	233
Okt. 7	21.037	96	23.68	146	11.060	110	83.49	203
17	20.941	124	25.14	142	10.950	141	85.52	167
27	20.817	144	26.56	131	10.809	166	87.19	128
Nov. 6	20.673	156	27.87	115	10.643	184	88.47	87
16	20.517	160	29.02	95	10.459	195	89.34	43
26	20.357	158	29.97	70	10.264	201	89.77	4
Dez. 6	20.199	150	30.67	44	10.063	200	89.73	50
16	20.049	137	31.11	15	9.863	193	89.23	94
26	19.912	118	31.26	14	9.670	181	88.29	136
36	19.794		31.12		9.489		86.93	
Mittl. Ort	17.005		45.45		6.602		51.39	
sec δ, tg δ	1.154		−0.576		1.346		+0.900	
a, a'	+3.3		+19.2		+2.8		+19.3	
b, b'	−0.04		+ 0.28		+0.06		+ 0.26	

Tag	870) β Pegasi AR.		870) Dekl.		871) α Pegasi AR.		871) Dekl.	
1939	23ʰ 0ᵐ		+27° 45′		23ʰ 1ᵐ		+14° 52′	
Jan. 1	49.195	119	19.46	140	43.534	99	45.92	115
11	49.076	101	18.06	163	43.435	81	44.77	127
21	48.975	78	16.43	179	43.354	61	43.50	131
31	48.897	50	14.64	187	43.293	36	42.19	130
Febr. 10	48.847	17	12.77	187	43.257	8	40.89	124
20	48.830	19	10.90	179	43.249	24	39.65	111
März 2	48.849	58	9.11	162	43.273	58	38.54	91
12	48.907	100	7.49	137	43.331	96	37.63	67
22	49.007	143	6.12	107	43.427	134	36.96	37
Apr. 1	49.150	184	5.05	70	43.561	171	36.59	4
11	49.334	224	4.35	29	43.732	207	36.55	31
21	49.558	259	4.06	13	43.939	241	36.86	67
Mai 1	49.817	289	4.19	57	44.180	269	37.53	101
11	50.106	312	4.76	98	44.449	291	38.54	133
21	50.418	327	5.74	137	44.740	306	39.87	161
31	50.745	333	7.11	173	45.046	313	41.48	186
Juni 10	51.078	330	8.84	203	45.359	311	43.34	205
20	51.408	319	10.87	228	45.670	303	45.39	218
30	51.727	299	13.15	246	45.973	285	47.57	226
Juli 10	52.026	272	15.61	259	46.258	260	49.83	228
20	52.298	238	18.20	266	46.518	229	52.11	224
30	52.536	199	20.86	265	46.747	193	54.35	216
Aug. 9	52.735	157	23.51	260	46.940	154	56.51	203
19	52.892	113	26.11	250	47.094	112	58.54	186
29	53.005	68	28.61	235	47.206	70	60.40	166
	7				7			
Sept. 7	53.073	25	30.96	214	47.276	30	62.06	145
17	53.098	15	33.10	192	47.306	9	63.51	121
27	53.083	52	35.02	166	47.297	43	64.72	96
Okt. 7	53.031	83	36.68	137	47.254	71	65.68	71
17	52.948	108	38.05	106	47.183	95	66.39	46
27	52.840	128	39.11	73	47.088	112	66.85	21
Nov. 6	52.712	141	39.84	40	46.976	124	67.06	4
16	52.571	150	40.24	5	46.852	130	67.02	29
26	52.421	153	40.29	31	46.722	132	66.73	51
Dez. 6	52.268	150	39.98	64	46.590	129	66.22	73
16	52.118	143	39.34	97	46.461	121	65.49	92
26	51.975	133	38.37	127	46.340	110	64.57	109
36	51.842		37.10		46.230		63.48	
Mittl. Ort	48.848		5.34		43.224		35.82	
sec δ, tg δ	1.130		+0.526		1.035		+0.266	
a, a'	+2.9		+19.4		+3.0		+19.4	
b, b'	+0.03		+ 0.26		+0.02		+ 0.25	

Scheinbare Sternörter 1939

Tag	872) ϑ Gruis AR.		872) ϑ Gruis Dekl.		874) π Cephei AR.		874) π Cephei Dekl.		873) c^2 Aquarii AR.		873) c^2 Aquarii Dekl.		875) Br 3077[1]) AR.		875) Br 3077[1]) Dekl.	
1939	$23^h\ 3^m$		$-43°\ 50'$		$23^h\ 5^m$		$+75°\ 3'$		$23^h\ 6^m$		$-21°\ 29'$		$23^h\ 10^m$		$+56°\ 49'$	
	s		"		s		"		s		"		s		"	
Jan. 1	26.610	151	69.43	83	57.23	69	51.63	136	11.855	100	75.64	4	20.675	264	73.96	150
11	26.459	122	68.60	120	56.54	62	50.27	190	11.755	80	75.68	19	20.411	234	72.46	195
21	26.337	90	67.40	155	55.92	53	48.37	237	11.675	59	75.49	42	20.177	194	70.51	232
31	26.247	55	65.85	186	55.39	41	46.00	275	11.616	34	75.07	65	19.983	145	68.19	262
Febr. 10	26.192	16	63.99	213	54.98	27	43.25	302	11.582	5	74.42	87	19.838	86	65.57	280
20	26.176	24	61.86	236	54.71	12	40.23	317	11.577	25	73.55	110	19.752	21	62.77	286
März 2	26.200	68	59.50	254	54.59	3	37.06	318	11.602	59	72.45	132	19.731	48	59.91	281
12	26.268	113	56.96	266	54.62	20	33.88	307	11.661	95	71.13	151	19.779	121	57.10	264
22	26.381	158	54.30	274	54.82	35	30.81	284	11.756	131	69.62	169	19.900	194	54.46	236
Apr. 1	26.539	204	51.56	277	55.17	49	27.97	250	11.887	168	67.93	186	20.094	262	52.10	200
11	26.743	247	48.79	273	55.66	62	25.47	206	12.055	206	66.07	199	20.356	326	50.10	155
21	26.990	288	46.06	264	56.28	73	23.41	156	12.261	239	64.08	207	20.682	382	48.55	104
Mai 1	27.278	323	43.42	250	57.01	81	21.85	101	12.500	268	62.01	211	21.064	426	47.51	50
11	27.601	353	40.92	229	57.82	87	20.84	42	12.768	293	59.90	211	21.490	459	47.01	5
21	27.954	375	38.63	203	58.69	90	20.42	18	13.061	311	57.79	206	21.949	480	47.06	61
31	28.329	387	36.60	171	59.59	91	20.60	75	13.372	322	55.73	194	22.429	487	47.67	115
Juni 10	28.716	390	34.89	137	60.50	89	21.35	132	13.694	323	53.79	178	22.916	480	48.82	165
20	29.106	383	33.52	97	61.39	84	22.67	185	14.017	317	52.01	157	23.396	461	50.47	210
30	29.489	365	32.55	56	62.23	78	24.52	231	14.334	302	50.44	133	23.857	430	52.57	250
Juli 10	29.854	337	31.99	14	63.01	69	26.83	273	14.636	279	49.11	104	24.287	388	55.07	283
20	30.191	301	31.85	28	63.70	59	29.56	308	14.915	249	48.07	74	24.675	339	57.90	310
30	30.492	256	32.13	69	64.29	48	32.64	336	15.164	213	47.33	43	25.014	282	61.00	330
Aug. 9	30.748	205	32.82	108	64.77	35	36.00	356	15.377	171	46.90	11	25.296	220	64.30	342
19	30.953	149	33.90	140	65.12	23	39.56	369	15.548	128	46.79	19	25.516	156	67.72	346
29	31.102	91	35.30	168	65.35	10	43.25	374	15.676	82	46.98	46	25.672	91	71.18	344
Sept. 7*)	7 31.193	33	36.98	189	8 65.45	3	46.99	371	8 15.758	38	47.44	71	9 25.763	27	74.62	335
17	31.226	22	38.87	201	65.42	16	50.70	361	15.796	4	48.15	90	25.790	35	77.97	319
27	31.204	73	40.88	206	65.26	28	54.31	343	15.792	43	49.05	105	25.755	92	81.16	296
Okt. 7	31.131	118	42.94	201	64.98	39	57.74	316	15.749	75	50.10	114	25.663	144	84.12	267
17	31.013	155	44.95	188	64.59	49	60.90	283	15.674	101	51.24	117	25.519	189	86.79	232
27	30.858	183	46.83	166	64.10	58	63.73	243	15.573	122	52.41	114	25.330	227	89.11	191
Nov. 6	30.675	201	48.49	139	63.52	66	66.16	196	15.451	134	53.55	107	25.103	258	91.02	146
16	30.474	210	49.88	105	62.86	71	68.12	142	15.317	141	54.62	95	24.845	280	92.48	95
26	30.264	211	50.93	67	62.15	75	69.54	84	15.176	140	55.57	79	24.565	295	93.43	42
Dez. 6	30.053	203	51.60	27	61.40	77	70.38	24	15.036	135	56.36	61	24.270	300	93.85	12
16	29.850	187	51.87	14	60.63	77	70.62	39	14.901	126	56.97	41	23.970	296	93.73	67
26	29.663	167	51.73	56	59.86	73	70.23	100	14.775	112	57.38	20	23.674	282	93.06	120
36	29.496		51.17		59.13		69.23		14.663		57.58		23.392		91.86	
Mittl. Ort	26.938		62.11		57.09		27.22		11.788		74.01		20.241		52.46	
sec δ, tg δ	1.387		−0.961		3.878		+3.747		1.075		−0.394		1.828		+1.530	
a, *a'*	+3.4		+19.4		+1.9		+19.5		+3.2		+19.5		+2.6		+19.6	
b, *b'*	−0.06		+ 0.24		+0.24		+ 0.23		−0.03		+ 0.23		+0.10		+ 0.22	

[1]) Die jährliche Parallaxe (0.″145) ist bereits berücksichtigt.

*) Bei Stern 874), 873) und 875) lies Sept. 8.

Tag		877) γ Tucanae				879) γ Sculptoris				880) τ Pegasi			
		AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1939		$23^h\ 13^m$		−58° 33′		$23^h\ 15^m$		−32° 51′		$23^h\ 17^m$		+23° 24′	
		s		"		s		"		s		"	
Jan.	1	51.996	256	84.46	128	32.016	125	58.08	32	37.335	118	34.32	124
	11	51.740	216	83.18	174	31.891	105	57.76	65	37.217	103	33.08	143
	21	51.524	171	81.44	215	31.786	80	57.11	96	37.114	84	31.65	156
	31	51.353	119	79.29	250	31.706	53	56.15	125	37.030	60	30.09	163
Febr.	10	51.234	65	76.79	280	31.653	22	54.90	151	36.970	30	28.46	162
	20	51.169	7	73.99	302	31.631	12	53.39	175	36.940	3	26.84	154
März	2	51.162	53	70.97	319	31.643	49	51.64	197	36.943	41	25.30	139
	12	51.215	116	67.78	327	31.692	88	49.67	215	36.984	80	23.91	115
	22	51.331	179	64.51	329	31.780	129	47.52	229	37.064	122	22.76	87
Apr.	1	51.510	240	61.22	324	31.909	170	45.23	239	37.186	164	21.89	54
	11	51.750	298	57.98	312	32.079	209	42.84	245	37.350	203	21.35	16
	21	52.048	354	54.86	295	32.288	247	40.39	245	37.553	240	21.19	23
Mai	1	52.402	403	51.91	270	32.535	281	37.94	241	37.793	272	21.42	63
	11	52.805	443	49.21	238	32.816	309	35.53	230	38.065	297	22.05	101
	21	53.248	474	46.83	203	33.125	330	33.23	215	38.362	315	23.06	136
	31	53.722	494	44.80	161	33.455	343	31.08	193	38.677	324	24.42	168
Juni	10	54.216	502	43.19	116	33.798	348	29.15	167	39.001	325	26.10	196
	20	54.718	495	42.03	69	34.146	344	27.48	136	39.326	317	28.06	218
	30	55.213	476	41.34	18	34.490	330	26.12	103	39.643	301	30.24	233
Juli	10	55.689	444	41.16	31	34.820	307	25.09	66	39.944	277	32.57	243
	20	56.133	399	41.47	79	35.127	276	24.43	28	40.221	247	35.00	248
	30	56.532	342	42.26	126	35.403	238	24.15	10	40.468	211	37.48	246
Aug.	9	56.874	277	43.52	166	35.641	194	24.25	46	40.679	172	39.94	240
	19	57.151	204	45.18	202	35.835	147	24.71	80	40.851	129	42.34	228
	29	57.355	126	47.20	230	35.982	98	25.51	110	40.980	87	44.62	212
Sept.	8	[10] 57.481	47	49.50	249	[10] 36.080	49	26.61	134	[11] 41.067	45	46.74	193
	17	57.528	30	51.99	259	36.129	1	27.95	152	41.112	6	48.67	170
	27	57.498	104	54.58	258	36.130	43	29.47	163	41.118	30	50.37	146
Okt.	7	57.394	170	57.16	246	36.087	81	31.10	167	41.088	62	51.83	119
	17	57.224	226	59.62	226	36.006	113	32.77	164	41.026	88	53.02	92
	27	56.998	271	61.88	195	35.893	137	34.41	152	40.938	108	53.94	62
Nov.	6	56.727	304	63.83	156	35.756	154	35.93	135	40.830	124	54.56	31
	16	56.423	322	65.39	111	35.602	163	37.28	112	40.706	134	54.87	2
	26	56.101	328	66.50	61	35.439	166	38.40	85	40.572	140	54.89	29
Dez.	6	55.773	321	67.11	9	35.273	162	39.25	54	40.432	140	54.60	59
	16	55.452	304	67.20	43	35.111	152	39.79	23	40.292	136	54.01	86
	26	55.148	278	66.77	95	34.959	137	40.02	11	40.156	129	53.15	112
	36	54.870		65.82		34.822		39.91		40.027		52.03	
Mittl. Ort		52.790		73.87		32.056		52.87		36.885		21.72	
sec δ, tg δ		1.918		−1.637		1.191		−0.646		1.090		+0.433	
$a,\ a'$		+3.5		+19.6		+3.2		+19.7		+3.0		+19.7	
$b,\ b'$		−0.11		+ 0.20		−0.04		+ 0.19		+0.03		+ 0.18	

Scheinbare Sternörter 1939

Tag	882) 4 Cassiopeiae AR.		882) 4 Cassiopeiae Dekl.		884) ϰ Piscium AR.		884) ϰ Piscium Dekl.		885) 70 Pegasi AR.		885) 70 Pegasi Dekl.	
1939	$23^h\ 22^m$		$+61°\ 56'$		$23^h\ 23^m$		$+0°\ 55'$		$23^h\ 26^m$		$+12°\ 25'$	
Jan. 1	$7^s.73$	34	$74''.15$	129	$48^s.668$	99	$22''.03$	77	$4^s.506$	106	$34''.21$	102
11	7.39	31	72.86	183	48.569	86	21.26	74	4.400	94	33.19	109
21	7.08	27	71.03	225	48.483	68	20.52	66	4.306	76	32.10	113
31	6.81	21	68.78	258	48.415	47	19.86	57	4.230	56	30.97	112
Febr. 10	6.60	15	66.20	282	48.368	23	19.29	44	4.174	29	29.85	106
20	6.45	7	63.38	295	48.345	5	18.85	27	4.145	0	28.79	94
März 2	6.38	1	60.43	295	48.350	38	18.58	6	4.145	34	27.85	75
12	6.39	10	57.48	282	48.388	73	18.52	17	4.179	70	27.10	52
22	6.49	19	54.66	260	48.461	109	18.69	42	4.249	109	26.58	26
Apr. 1	6.68	26	52.06	226	48.570	146	19.11	70	4.358	148	26.32	5
11	6.94	34	49.80	183	48.716	183	19.81	96	4.506	186	26.37	37
21	7.28	42	47.97	135	48.899	218	20.77	122	4.692	222	26.74	70
Mai 1	7.70	46	46.62	82	49.117	248	21.99	146	4.914	253	27.44	102
11	8.16	50	45.80	27	49.365	274	23.45	166	5.167	279	28.46	132
21	8.66	53	45.53	31	49.639	293	25.11	182	5.446	298	29.78	159
31	9.19	55	45.84	86	49.932	304	26.93	193	5.744	309	31.37	180
Juni 10	9.74	54	46.70	138	50.236	307	28.86	200	6.053	313	33.17	198
20	10.28	52	48.08	188	50.543	303	30.86	200	6.366	307	35.15	210
30	10.80	49	49.96	231	50.846	291	32.86	196	6.673	294	37.25	217
Juli 10	11.29	45	52.27	269	51.137	270	34.82	187	6.967	273	39.42	217
20	11.74	39	54.96	301	51.407	243	36.69	172	7.240	246	41.59	213
30	12.13	33	57.97	324	51.650	210	38.41	155	7.486	213	43.72	204
Aug. 9	12.46	26	61.21	342	51.860	174	39.96	134	7.699	175	45.76	190
19	12.72	19	64.63	352	52.034	135	41.30	112	7.874	136	47.66	173
29	12.91	12	68.15	354	52.169	94	42.42	87	8.010	96	49.39	154
Sept. 8	$_{12}$13.03	5	71.69	349	$_{12}$52.263	54	43.29	63	$_{13}$8.106	55	50.93	132
17	13.08	3	75.18	337	52.317	16	43.92	40	8.161	17	52.25	109
27	13.05	10	78.55	318	52.333	19	44.32	18	8.178	17	53.34	85
Okt. 7	12.95	15	81.73	292	52.314	49	44.50	3	8.161	47	54.19	61
17	12.80	21	84.65	259	52.265	73	44.47	21	8.114	73	54.80	38
27	12.59	26	87.24	220	52.192	93	44.26	36	8.041	93	55.18	15
Nov. 6	12.33	30	89.44	175	52.099	107	43.90	48	7.948	108	55.33	7
16	12.03	34	91.19	126	51.992	116	43.42	60	7.840	119	55.26	28
26	11.69	36	92.45	71	51.876	120	42.82	68	7.721	123	54.98	47
Dez. 6	11.33	37	93.16	15	51.756	120	42.14	73	7.598	125	54.51	66
16	10.96	37	93.31	42	51.636	115	41.41	77	7.473	122	53.85	82
26	10.59	35	92.89	99	51.521	107	40.64	79	7.351	115	53.03	96
36	10.24		91.90		51.414		39.85		7.236		52.07	
Mittl. Ort	7.12		51.59		48.307		17.01		4.058		25.35	
sec δ, tg δ	2.126		+1.877		1.000		+0.016		1.024		+0.220	
a, *a′*	+2.7		+19.8		+3.1		+19.8		+3.0		+19.8	
b, *b′*	+0.12		+ 0.16		0.00		+ 0.16		+0.01		+ 0.15	

Tag	891) ι Andromedae AR.		Dekl.		892) ι Piscium AR.		Dekl.		893) γ Cephei AR.		Dekl.	
1939	$23^h\ 35^m$		$+42°\ 55'$		$23^h\ 36^m$		$+5°\ 17'$		$23^h\ 36^m$		$+77°\ 17'$	
	s		"		s		"		s		"	
Jan. 1	8.986	185	66.54	125	49.155	105	49.54	85	50.71	87	55.48	90
11	8.801	170	65.29	163	49.050	94	48.69	87	49.84	80	54.58	148
21	8.631	148	63.66	193	48.956	79	47.82	84	49.04	72	53.10	202
31	8.483	117	61.73	217	48.877	59	46.98	78	48.32	59	51.08	247
Febr. 10	8.366	81	59.56	232	48.818	35	46.20	68	47.73	45	48.61	282
20	8.285	37	57.24	236	48.783	8	45.52	52	47.28	28	45.79	305
März 2	8.248	12	54.88	230	48.775	24	45.00	33	47.00	10	42.74	316
12	8.260	64	52.58	215	48.799	60	44.67	11	46.90	9	39.58	314
22	8.324	119	50.43	191	48.859	98	44.56	15	46.99	28	36.44	299
Apr. 1	8.443	173	48.52	157	48.957	136	44.71	43	47.27	45	33.45	274
11	8.616	225	46.95	118	49.093	174	45.14	71	47.72	62	30.71	237
21	8.841	272	45.77	74	49.267	210	45.85	100	48.34	76	28.34	192
Mai 1	9.113	313	45.03	26	49.477	242	46.85	126	49.10	87	26.42	142
11	9.426	345	44.77	22	49.719	270	48.11	150	49.97	97	25.00	86
21	9.771	369	44.99	70	49.989	290	49.61	171	50.94	103	24.14	29
31	10.140	383	45.69	117	50.279	304	51.32	186	51.97	105	23.85	30
Juni 10	10.523	385	46.86	160	50.583	309	53.18	197	53.02	106	24.15	87
20	10.908	377	48.46	197	50.892	307	55.15	203	54.08	102	25.02	142
30	11.285	360	50.43	231	51.199	295	57.18	202	55.10	96	26.44	193
Juli 10	11.645	334	52.74	258	51.494	277	59.20	198	56.06	89	28.37	238
20	11.979	300	55.32	278	51.771	251	61.18	187	56.95	79	30.75	278
30	12.279	259	58.10	293	52.022	220	63.05	173	57.74	67	33.53	312
Aug. 9	12.538	214	61.03	301	52.242	185	64.78	155	58.41	54	36.65	339
19	12.752	165	64.04	302	52.427	147	66.33	135	58.95	40	40.04	358
29	12.917	116	67.06	297	52.574	107	67.68	112	59.35	25	43.62	371
Sept. 8	[15] 13.033	67	70.03	286	[16] 52.681	67	68.80	89	[16] 59.60	11	47.33	375
17	13.100	20	72.89	270	52.748	29	69.69	65	59.71	4	51.08	372
27	13.120	24	75.59	248	52.777	5	70.34	43	59.67	18	54.80	360
Okt. 7	13.096	65	78.07	222	52.772	35	70.77	21	59.49	33	58.40	341
17	13.031	100	80.29	192	52.737	62	70.98	0	59.16	46	61.81	314
27	12.931	131	82.21	157	52.675	83	70.98	18	58.70	57	64.95	279
Nov. 6	12.800	156	83.78	118	52.592	99	70.80	34	58.13	68	67.74	236
16	12.644	175	84.96	77	52.493	110	70.46	48	57.45	77	70.10	187
26	12.469	189	85.73	33	52.383	116	69.98	61	56.68	84	71.97	133
Dez. 6	12.280	197	86.06	13	52.267	119	69.37	71	55.84	89	73.30	73
16	12.083	199	85.93	58	52.148	117	68.66	79	54.95	91	74.03	10
26	11.884	196	85.35	101	52.031	112	67.87	85	54.04	90	74.13	53
36	11.688		84.34		51.919		67.02		53.14		73.60	
Mittl. Ort	8.303		48.37		48.689		43.38		49.64		30.79	
sec δ, tg δ	1.366		+0.930		1.004		+0.093		4.546		+4.434	
a, *a'*	+2.9		+19.9		+3.1		+19.9		+2.5		+19.9	
b, *b'*	+0.06		+ 0.11		+0.01		+ 0.10		+0.29		+ 0.10	

Scheinbare Sternörter 1939

Tag		894) ω² Aquarii AR.		894) ω² Aquarii Dekl.		895) 41 H. Cephei AR.		895) 41 H. Cephei Dekl.		896) Lac. δ Sculptoris AR.		896) Lac. δ Sculptoris Dekl.	
1939		$23^h\ 39^m$		−14° 52′		$23^h\ 44^m$		+67° 27′		$23^h\ 45^m$		−28° 27′	
		s		"		s		"		s		"	
Jan.	1	33.935	110	57.17	36	59.85	46	87.50	96	45.264	133	69.24	0
	11	33.825	98	57.53	17	59.39	43	86.54	151	45.131	118	69.24	30
	21	33.727	82	57.70	2	58.96	38	85.03	200	45.013	101	68.94	62
	31	33.645	61	57.68	24	58.58	32	83.03	242	44.912	79	68.32	91
Febr.	10	33.584	38	57.44	46	58.26	24	80.61	273	44.833	52	67.41	120
	20	33.546	10	56.98	68	58.02	16	77.88	293	44.781	22	66.21	146
März	2	33.536	21	56.30	91	57.86	5	74.95	302	44.759	11	64.75	171
	12	33.557	57	55.39	114	57.81	5	71.93	298	44.770	50	63.04	193
	22	33.614	94	54.25	137	57.86	16	68.95	282	44.820	90	61.11	211
Apr.	1	33.708	132	52.88	157	58.02	27	66.13	255	44.910	131	59.00	227
	11	33.840	170	51.31	175	58.29	36	63.58	218	45.041	172	56.73	237
	21	34.010	208	49.56	190	58.65	45	61.40	174	45.213	212	54.36	244
Mai	1	34.218	241	47.66	202	59.10	52	59.66	123	45.425	249	51.92	245
	11	34.459	269	45.64	209	59.62	59	58.43	69	45.674	280	49.47	241
	21	34.728	291	43.55	210	60.21	62	57.74	13	45.954	306	47.06	230
	31	35.019	307	41.45	208	60.83	64	57.61	43	46.260	324	44.76	214
Juni	10	35.326	314	39.37	198	61.47	65	58.04	99	46.584	334	42.62	193
	20	35.640	313	37.39	183	62.12	64	59.03	151	46.918	335	40.69	166
	30	35.953	304	35.56	165	62.76	61	60.54	198	47.253	327	39.03	136
Juli	10	36.257	286	33.91	142	63.37	56	62.52	242	47.580	310	37.67	102
	20	36.543	261	32.49	116	63.93	50	64.94	279	47.890	285	36.65	64
	30	36.804	230	31.33	86	64.43	44	67.73	309	48.175	252	36.01	27
Aug.	9	37.034	195	30.47	56	64.87	36	70.82	333	48.427	215	35.74	10
	19	37.229	155	29.91	25	65.23	28	74.15	349	48.642	172	35.84	47
	29	37.384	113	29.66	4	65.51	20	77.64	358	48.814	127	36.31	79
Sept.	8	37.497	71	29.70	31	65.71	10	81.22	360	48.941	81	37.10	109
	17*)	16 37.568	31	30.01	55	18 65.81	2	84.82	354	18 49.022	36	38.19	132
	27	37.599	6	30.56	75	65.83	6	88.36	341	49.058	6	39.51	149
Okt.	7	37.593	39	31.31	90	65.77	14	91.77	321	49.052	44	41.00	159
	17	37.554	68	32.21	99	65.63	21	94.98	293	49.008	78	42.59	162
	27	37.486	90	33.20	105	65.42	29	97.91	257	48.930	104	44.21	158
Nov.	6	37.396	107	34.25	105	65.13	34	100.48	216	48.826	125	45.79	146
	16	37.289	119	35.30	100	64.79	39	102.64	168	48.701	140	47.25	129
	26	37.170	125	36.30	91	64.40	44	104.32	115	48.561	147	48.54	107
Dez.	6	37.045	127	37.21	80	63.96	46	105.47	58	48.414	150	49.61	81
	16	36.918	125	38.01	66	63.50	47	106.05	2	48.264	148	50.42	53
	26	36.793	117	38.67	49	63.03	47	106.03	60	48.116	141	50.95	21
	36	36.676		39.16		62.56		105.43		47.975		51.16	
Mittl. Ort		33.620		56.41		58.80		64.13		45.071		64.02	
sec δ, tg δ		1.035		−0.266		2.610		+2.410		1.138		−0.542	
a, *a*′		+3.1		+20.0		+2.9		+20.0		+3.1		+20.0	
b, *b*′		−0.02		+ 0.09		+0.16		+ 0.07		−0.04		+ 0.06	

*) Bei Stern 895) und 896) lies Sept. 18.

Tag	898) φ Pegasi AR.		898) φ Pegasi Dekl.		902) ω Piscium AR.		902) ω Piscium Dekl.		903) ε Tucanae AR.		903) ε Tucanae Dekl.	
1939	$23^h 49^m$		$+18° 46'$		$23^h 56^m$		$+6° 31'$		$23^h 56^m$		$-65° 54'$	
	s		"		s		"		s		"	
Jan. 1	23.525	122	63.32	102	11.232	112	38.15	83	44.66	41	73.71	102
11	23.403	113	62.30	116	11.120	104	37.32	86	44.25	37	72.69	156
21	23.290	99	61.14	126	11.016	92	36.46	84	43.88	33	71.13	205
31	23.191	80	59.88	132	10.924	75	35.62	80	43.55	27	69.08	249
Febr. 10	23.111	56	58.56	131	10.849	53	34.82	70	43.28	21	66.59	285
20	23.055	26	57.25	124	10.796	28	34.12	56	43.07	14	63.74	315
März 2	23.029	8	56.01	110	10.768	4	33.56	39	42.93	6	60.59	337
12	23.037	46	54.91	91	10.772	40	33.17	18	42.87	2	57.22	352
22	23.083	87	54.00	65	10.812	77	32.99	8	42.89	10	53.70	358
Apr. 1	23.170	130	53.35	36	10.889	117	33.07	34	42.99	18	50.12	357
11	23.300	170	52.99	3	11.006	158	33.41	63	43.17	26	46.55	348
21	23.470	210	52.96	32	11.164	195	34.04	91	43.43	34	43.07	333
Mai 1	23.680	246	53.28	67	11.359	230	34.95	118	43.77	41	39.74	309
11	23.926	275	53.95	101	11.589	260	36.13	143	44.18	48	36.65	278
21	24.201	298	54.96	132	11.849	284	37.56	165	44.66	53	33.87	242
31	24.499	313	56.28	160	12.133	300	39.21	182	45.19	57	31.45	199
Juni 10	24.812	320	57.88	184	12.433	308	41.03	194	45.76	59	29.46	152
20	25.132	318	59.72	203	12.741	309	42.97	201	46.35	60	27.94	101
30	25.450	308	61.75	216	13.050	301	44.98	203	46.95	60	26.93	48
Juli 10	25.758	289	63.91	223	13.351	285	47.01	200	47.55	57	26.45	7
20	26.047	265	66.14	226	13.636	262	49.01	191	48.12	54	26.52	62
30	26.312	234	68.40	223	13.898	234	50.92	178	48.66	48	27.14	114
Aug. 9	26.546	198	70.63	214	14.132	200	52.70	162	49.14	41	28.28	162
19	26.744	160	72.77	203	14.332	163	54.32	142	49.55	33	29.90	205
29	26.904	121	74.80	186	14.495	125	55.74	119	49.88	24	31.95	242
Sept. 8	27.025	80	76.66	167	14.620	87	56.93	97	50.12	14	34.37	268
18	(19) 27.105	41	78.33	147	(21) 14.707	49	57.90	74	(21) 50.26	5	37.05	285
27	27.146	6	79.80	123	14.756	14	58.64	50	50.31	5	39.90	291
Okt. 7	27.152	26	81.03	99	14.770	17	59.14	29	50.26	15	42.81	286
17	27.126	54	82.02	75	14.753	45	59.43	8	50.11	23	45.67	270
27	27.072	78	82.77	49	14.708	68	59.51	11	49.88	30	48.37	242
Nov. 6	26.994	97	83.26	25	14.640	86	59.40	28	49.58	36	50.79	204
16	26.897	111	83.51	1	14.554	101	59.12	43	49.22	41	52.83	159
26	26.786	121	83.50	26	14.453	110	58.69	55	48.81	44	54.42	107
Dez. 6	26.665	127	83.24	49	14.343	116	58.14	66	48.37	44	55.49	51
16	26.538	130	82.75	72	14.227	118	57.48	76	47.93	45	56.00	8
26	26.408	128	82.03	91	14.109	118	56.72	82	47.48	42	55.92	65
36	26.280		81.12		13.991		55.90		47.06		55.27	
Mittl. Ort	22.887		52.84		10.641		32.09		45.52		60.01	
sec δ, tg δ	1.056		+0.340		1.007		+0.114		2.451		−2.237	
a, *a'*	+3.1		+20.0		+3.1		+20.0		+3.1		+20.0	
b, *b'*	+0.02		+ 0.05		+0.01		+ 0.02		−0.15		+ 0.01	

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Na) 43 Hev. Cephei $4^m.52$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		+	in			+	in			+	in			+	in	
	$1^h 0^m$	85° 56′	$0^s.01$	$0''.01$	$0^h 59^m$	85° 56′	$0^s.01$	$0''.01$	$0^h 59^m$	85° 55′	$0^s.01$	$0''.01$	$0^h 59^m$	85° 55′	$0^s.01$	$0''.01$
1	11.87	15.07	−3	−10	62.87	14.34	+7	−1	56.42	68.82	+7	+2	53.56	59.55	−4	+7
2	11.58	15.14	+1	−9	62.60	14.21	+7	+4	56.25	68.55	+5	+5	53.56	59.24	−6	+4
3	11.29	15.20	+5	−7	62.33	14.08	+4	+7	56.08	68.29	+2	+7	53.57	58.92	−7	+1
4	11.00	15.26	+7	−3	62.06	13.95	+1	+9	55.92	68.01	−1	+8	53.58	58.60	−6	−2
5	10.71	15.32	+8	+2	61.80	13.81	−3	+8	55.76	67.74	−5	+6	53.60	58.29	−4	−4
6	10.42	15.37	+6	+6	61.53	13.66	−6	+6	55.61	67.46	−7	+3	53.62	57.97	−1	−5
7	10.12	15.41	+3	+8	61.27	13.51	−7	+3	55.46	67.18	−7	0	*)53.65	57.65	+3	−5
8	9.83	15.44	−1	+9	61.01	13.35	−6	−1	55.32	66.90	−5	−3	53.68	57.34	+6	−3
9	9.54	15.47	−4	+8	60.76	13.18	−4	−3	55.18	66.62	−2	−5	53.72	57.02	+8	−1
10	9.24	15.49	−6	+5	60.51	13.01	−1	−5	55.05	66.33	+1	−5	53.77	56.71	+8	+2
11	8.94	15.51	−7	+1	60.26	12.83	+3	−5	54.92	66.04	+4	−4	53.82	56.40	+7	+4
12	8.65	15.52	−5	−2	60.01	12.65	+6	−3	54.80	65.75	+7	−2	53.88	56.09	+5	+6
13	8.35	15.52	−2	−4	59.77	12.47	+8	−1	54.69	65.45	+8	+1	53.94	55.78	+2	+7
14	8.06	15.51	+1	−5	59.53	12.27	+8	+1	54.58	65.15	+8	+3	54.01	55.48	−1	+6
15	7.76	15.50	+4	−5	59.30	12.08	+7	+4	54.47	64.85	+6	+5	54.08	55.17	−4	+5
16	7.47	15.49	+6	−3	59.06	11.88	+5	+6	54.38	64.55	+4	+7	54.16	54.87	−6	+3
17	7.17	15.46	+8	0	58.84	11.67	+3	+6	54.28	64.25	+1	+7	54.25	54.57	−8	0
18	6.88	15.43	+8	+2	58.61	11.46	0	+6	54.19	63.95	−2	+6	54.34	54.27	−8	−4
19	6.58	15.39	+6	+4	58.39	11.24	−3	+5	54.11	63.64	−5	+4	54.44	53.97	−7	−7
20	6.29	15.35	+4	+6	58.17	11.02	−6	+3	54.03	63.33	−7	+1	54.54	53.68	−4	−9
21	6.00	15.30	+2	+6	57.96	10.79	−8	0	53.96	63.02	−8	−2	54.65	53.39	−1	−9
22	5.71	15.24	−2	+6	57.75	10.56	−8	−4	53.89	62.71	−8	−5	54.76	53.10	+3	−8
23	5.42	15.18	−4	+4	57.55	10.32	−8	−7	53.83	62.39	−6	−8	54.88	52.81	+5	−5
24	5.13	15.11	−7	+2	57.35	10.08	−5	−8	53.78	62.08	−3	−9	55.00	52.52	+7	−1
25	4.85	15.03	−8	−1	57.16	9.84	−2	−10	53.73	61.76	0	−9	55.13	52.24	+7	+3
26	4.56	14.95	−9	−5	56.97	9.59	+1	−9	53.69	61.45	+4	−7	55.26	51.96	+4	+6
27	4.28	14.87	−7	−8	56.78	9.34	+5	−7	53.66	61.13	+6	−4	55.40	51.68	+1	+7
28	3.99	14.77	−4	−10	56.60	9.08	+7	−3	53.63	60.82	+7	0	55.55	51.41	−2	+7
29	3.71	14.67	−1	−10	56.42	8.82	+7	+2	53.60	60.50	+6	+4	55.70	51.14	−5	+5
30	3.43	14.57	+3	−8					53.58	60.19	+3	+7	55.85	50.87	−7	+2
31	3.15	14.46	+6	−5					53.57	59.87	0	+8	56.01	50.61	−7	−1
32	2.87	14.34	+7	−1					53.56	59.55	−4	+7				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 55′ 50″	14.091	+ 14.056	+85° 56′ 0″	14.101	+ 14.065	+85° 56′ 10″	14.111	+ 14.075
60	14.101	+ 14.065	10	14.111	+ 14.075	20	14.120	+ 14.085

$\alpha_{1939.0} = 1^h\ 0^m\ 1^s.61$ $\delta_{1939.0} = +85°\ 55'\ 51''.77$

*) Tag der doppelten unteren Kulmination: April 7.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Na) 43 Hev. Cephei $4^{m}.52$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$0^h\ 59^m$	$+85°\ 55'$	in $0.^s01$	$0.''01$	$1^h\ 0^m$	$+85°\ 55'$	in $0.^s01$	$0.''01$	$1^h\ 0^m$	$+85°\ 55'$	in $0.^s01$	$0.''01$	$1^h\ 0^m$	$+85°\ 55'$	in $0.^s01$	$0.''01$
1	56.01	50.61	−7	−1	3.02	44.45	+3	−5	12.15	43.17	+8	+1	21.65	46.98	+1	+7
2	56.18	50.35	−5	−4	3.30	44.33	+6	−3	12.46	43.22	+7	+4	21.93	47.18	−2	+6
3	56.34	50.09	−2	−5	3.58	44.22	+8	−1	12.78	43.27	+5	+5	22.21	47.39	−5	+4
4	56.52	49.84	+1	−6	3.87	44.11	+8	+2	13.10	43.32	+3	+7	22.49	47.60	−7	+1
5	56.70	49.59	+5	−4	4.15	44.00	+7	+4	13.42	43.38	0	+7	22.76	47.82	−8	−2
6	56.88	49.34	+7	−2	4.44	43.90	+5	+6	13.73	43.45	−3	+5	23.04	48.04	−8	−5
7	57.06	49.10	+8	+1	4.73	43.81	+2	+7	14.05	43.52	−6	+3	23.31	48.26	−6	−8
8	57.26	48.86	+8	+3	5.03	43.72	−1	+6	14.36	43.59	−8	0	23.58	48.49	−4	−10
9	57.45	48.62	+6	+5	5.32	43.63	−4	+5	14.68	43.67	−8	−3	23.85	48.72	0	−10
10	57.65	48.39	+3	+7	5.62	43.55	−7	+2	15.00	43.76	−8	−7	24.11	48.96	+3	−8
11	57.86	48.16	0	+7	5.92	43.48	−8	−1	15.31	43.85	−6	−9	24.37	49.20	+6	−5
12	58.07	47.94	−3	+6	6.22	43.41	−8	−5	15.63	43.95	−2	−10	24.63	49.45	+7	−1
13	58.28	47.72	−6	+4	6.52	43.35	−7	−8	15.94	44.05	+1	−9	24.89	49.70	+6	+3
14	58.50	47.51	−8	+1	6.83	43.30	−4	−9	16.25	44.16	+5	−6	25.14	49.95	+4	+6
15	58.72	47.30	−8	−3	7.13	43.24	0	−9	16.57	44.27	+7	−3	25.39	50.21	0	+8
16	58.95	47.09	−8	−6	7.44	43.20	+3	−8	16.88	44.39	+7	+1	25.64	50.47	−3	+7
17	59.17	46.89	−6	−8	7.74	43.16	+6	−5	17.18	44.52	+5	+5	25.89	50.74	−6	+5
18	59.41	46.69	−2	−9	8.05	43.12	+8	−1	17.49	44.65	+2	+8	26.13	51.01	−7	+2
19	59.64	46.50	+1	−9	8.36	43.09	+7	+4	17.80	44.78	−1	+8	26.37	51.28	−6	−1
20	59.88	46.31	+4	−6	8.67	43.07	+4	+7	18.11	44.92	−4	+7	26.61	51.56	−4	−4
21	60.13	46.13	+7	−3	8.99	43.05	+1	+8	18.41	45.06	−6	+4	26.84	51.84	0	−5
22	60.37	45.95	+7	+1	9.30	43.04	−3	+8	18.72	45.21	−7	+1	27.07	52.12	+3	−5
23	60.63	45.78	+6	+5	9.62	43.03	−6	+5	19.02	45.37	−5	−3	27.30	52.41	+6	−3
24	60.88	45.61	+3	+8	9.93	43.03	−7	+2	19.32	45.53	−2	−5	27.52	52.70	+8	0
25	61.14	45.45	−1	+8	10.25	43.03	−6	−1	19.62	45.69	+1	−5	27.74	53.00	+8	+3
26	61.40	45.29	−4	+7	10.56	43.04	−4	−4	19.91	45.86	+4	−4	27.96	53.29	+7	+5
27	61.66	45.14	−6	+4	10.88	43.06	−1	−5	20.21	46.04	+7	−2	28.17	53.60	+5	+7
28	61.92	44.99	−7	+1	11.19	43.08	+2	−5	20.50	46.22	+8	+1	28.38	53.90	+2	+7
29	62.19	44.85	−6	−3	11.51	43.10	+5	−4	20.79	46.40	+8	+3	28.59	54.21	−1	+7
30	62.46	44.71	−3	−5	11.83	43.13	+7	−1	21.08	46.59	+6	+5	28.79	54.52	−3	+5
31	62.74	44.58	0	−6	12.15	43.17	+8	+1	21.36	46.78	+4	+7	28.99	54.83	−6	+3
32	63.02	44.45	+3	−5					21.65	46.98	+1	+7	29.18	55.15	−7	0

δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 55′ 40″	14.082	+ 14.046	+85° 55′ 50″	14.091	+ 14.056
50	14.091	+ 14.056	60	14.101	+ 14.065

$\alpha_{1939.0} = 1^h\ 0^m\ 1^s.61$ $\delta_{1939.0} = +85°\ 55'\ 51''.77$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Na) 43 Hev. Cephei $4^m.52$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		+	in			+	in			+	in			+	in	
	$1^h\ 0^m$	85° 55′	$0^s.01$	0″.01	$1^h\ 0^m$	85° 56′	$0^s.01$	0″.01	$1^h\ 0^m$	85° 56′	$0^s.01$	0″.01	$1^h\ 0^m$	85° 56′	$0^s.01$	0″.01
1	29.18	55.15	−7	0	33.22	5.66	−5	−8	33.13	17.50	+6	−1	28.79	26.78	+3	+7
2	29.37	55.47	−8	−4	33.29	6.03	−2	−9	33.05	17.85	+6	+2	28.59	27.03	−1	+7
3	29.56	55.79	−7	−7	33.35	6.40	+1	−9	32.97	18.20	+4	+5	28.37	27.28	−4	+6
4	29.75	56.11	−5	−9	33.41	6.78	+4	−7	32.88	18.54	+1	+7	28.16	27.52	−7	+3
5	29.93	56.44	−2	−10	33.47	7.15	+6	−4	32.79	18.89	−3	+7	27.94	27.76	−7	0
6	30.11	56.77	+2	−9	33.52	7.53	+6	0	32.69	19.23	−5	+5	27.72	27.99	−6	−3
7	30.28	57.10	+5	−6	33.57 33.61	7.90 8.28	+5 +3	+3 +6	32.59	19.57	−7	+2	27.49	28.22	−3	−5
8	30.45	57.44	+6	−3	33.65	8.65	0	+7	32.48	19.91	−7	−2	27.26	28.44	0	−6
9	30.62	57.77	+6	+1	33.68	9.03	−4	+6	32.37	20.25	−5	−4	27.03	28.66	+4	−5
10	30.78	58.12	+5	+5	33.71	9.40	−7	+3	32.25	20.58	−2	−6	26.79	28.87	+7	−3
11	30.94	58.46	+2	+7	33.73	9.78	−7	0	32.13	20.91	+2	−6	26.55	29.08	+8	0
12	31.09	58.80	−2	+7	33.75	10.15	−6	−3	32.00	21.24	+5	−4	26.30	29.28	+8	+3
13	31.24	59.15	−5	+5	33.76	10.53	−4	−5	31.87	21.56	+7	−1	26.06	29.47	+6	+6
14	31.39	59.50	−7	+3	33.77	10.90	0	−6	31.74	21.88	+8	+2	25.80	29.66	+4	+7
15	31.53	59.84	−7	0	33.78	11.28	+3	−5	31.60	22.20	+8	+5	25.55	29.85	+1	+8
16	31.67	60.20	−5	−3	33.78	11.65	+7	−3	31.46	22.51	+6	+7	25.29	30.03	−2	+7
17	31.80	60.55	−2	−5	33.77	12.02	+8	0	31.31	22.82	+3	+8	25.03	30.20	−5	+5
18	31.93	60.91	+2	−5	33.76	12.40	+8	+3	31.16	23.13	0	+7	24.77	30.37	−7	+2
19	32.05	61.27	+5	−4	33.75	12.77	+7	+6	31.00	23.43	−3	+6	24.50	30.53	−8	−2
20	32.18	61.62	+7	−1	33.73	13.14	+5	+7	30.84	23.73	−6	+3	24.24	30.68	−7	−5
21	32.29	61.98	+9	+2	33.71	13.51	+2	+8	30.67	24.03	−7	0	23.97	30.83	−6	−8
22	32.40	62.35	+8	+5	33.68	13.88	−1	+7	30.50	24.32	−8	−3	23.70	30.98	−3	−9
23	32.51	62.71	+6	+7	33.64	14.25	−4	+5	30.33	24.61	−7	−6	23.43	31.11	0	−9
24	32.62	63.07	+4	+8	33.61	14.62	−6	+2	30.15	24.90	−5	−8	23.16	31.24	+3	−7
25	32.71	63.44	+1	+7	33.57	14.98	−7	−1	29.97	25.18	−2	−9	22.88	31.37	+6	−4
26	32.81	63.80	−2	+6	33.52	15.35	−7	−4	29.78	25.46	+2	−8	22.60	31.49	+7	0
27	32.90	64.17	−5	+4	33.47	15.71	−6	−7	29.59	25.73	+5	−6	22.32	31.61	+6	+3
28	32.99	64.54	−7	+1	33.41	16.07	−3	−9	29.40	26.00	+6	−2	22.04	31.71	+4	+6
29	33.07	64.91	−8	−2	33.35	16.43	0	−9	29.20	26.26	+6	+1	21.76	31.81	0	+7
30	33.15	65.29	−7	−5	33.28	16.79	+3	−8	29.00	26.52	+5	+5	21.47	31.91	−3	+7
31	33.22	65.66	−5	−8	33.21	17.14	+5	−5	28.79	26.78	+3	+7	21.19	32.00	−6	+5
32					33.13	17.50	+6	−1					20.90	32.08	−7	+2

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 55′ 50″	14.091	+ 14.056	+85° 56′ 10″	14.111	+ 14.075	+85° 56′ 30″	14.130	+ 14.094
60	14.101	+ 14.065	20	14.120	+ 14.085	40	14.140	+ 14.104

$\alpha_{1939.0} = 1^h\ 0^m\ 1^s.61$ $\delta_{1939.0} = +85°\ 55'\ 51''.77$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nb) α Ursae minoris $2^{m}_{\cdot}12$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
		+	in			+	in			+	in			+	in	
	$1^h 42^m$	88° 58′	$0^s.01$	$0''.01$	$1^h 41^m$	88° 58′	$0^s.01$	$0''.01$	$1^h 41^m$	88° 58′	$0^s.01$	$0''.01$	$1^h 41^m$	88° 58′	$0^s.01$	$0''.01$
1	51.66	47.53	−12	−10	75.35	48.83	+27	−2	45.83	44.79	+27	0	27.96	36.24	−12	+7
2	50.56	47.67	+4	−10	74.18	48.77	+26	+3	44.96	44.57	+21	+4	27.72	35.92	−23	+5
3	49.45	47.80	+17	−8	73.01	48.70	+18	+6	44.11	44.34	+10	+7	27.51	35.61	−27	+2
4	48.33	47.92	+27	−4	71.84	48.62	+5	+9	43.27	44.11	−4	+8	27.33	35.29	−24	−1
5	47.21	48.04	+30	0	70.68	48.54	−9	+9	42.46	43.87	−17	+7	27.16	34.98	−16	−4
6	46.08	48.15	+25	+5	69.53	48.45	−20	+7	41.66	43.63	−25	+5	27.02	34.66	−4	−5
7	44.94	48.26	+14	+8	68.38	48.36	−25	+4	40.88	43.38	−26	+1	26.91	34.34	+10	−6
8	43.79	48.36	−1	+10	67.24	48.26	−24	0	40.12	43.13	−21	−2	26.81	34.03	+21	−4
9	42.64	48.46	−14	+8	66.11	48.15	−16	−3	39.37	42.88	−10	−4	26.74	33.71	+31	−2
10	41.48	48.55	−23	+6	64.99	48.04	−4	−5	38.65	42.62	+3	−5	26.69	33.39	+32	+1
11	40.31	48.63	−25	+2	63.87	47.92	+10	−5	37.95	42.36	+17	−5	26.67	33.07	+29	+3
12	39.14	48.70	−21	−1	62.77	47.79	+21	−4	37.26	42.10	+26	−3	26.66	32.75	+21	+5
13	37.97	48.77	−10	−4	61.67	47.66	+29	−2	36.60	41.83	+31	−1	26.68	32.44	+11	+7
14	36.79	48.83	+2	−5	60.59	47.52	+31	0	35.95	41.56	+31	+2	26.73	32.12	−2	+7
15	35.61	48.89	+14	−5	59.52	47.38	+29	+3	35.33	41.29	+26	+4	26.79	31.80	−14	+6
16	34.42	48.94	+23	−4	58.45	47.23	+22	+5	34.72	41.01	+17	+6	26.88	31.49	−23	+4
17	33.23	48.98	+29	−2	57.40	47.07	+12	+6	34.14	40.73	+6	+7	26.99	31.17	−30	+1
18	32.04	49.02	+30	+1	56.37	46.91	0	+6	33.58	40.44	−6	+6	*)27.13	30.86	−31	−2
19	30.85	49.05	+25	+3	55.34	46.74	−11	+6	33.03	40.16	−17	+5	27.28	30.54	−27	−5
20	29.65	49.07	+18	+5	54.33	46.57	−21	+4	32.51	39.87	−26	+3	27.46	30.23	−18	−8
21	28.45	49.09	+8	+6	53.33	46.39	−30	+1	32.01	39.58	−31	0	27.66	29.92	−5	−9
22	27.25	49.10	−5	+6	52.34	46.21	−33	−2	31.53	39.29	−30	−4	27.89	29.61	+9	−8
23	26.06	49.10	−16	+5	51.37	46.02	−30	−5	31.07	38.99	−25	−7	28.13	29.30	+20	−6
24	24.86	49.10	−26	+3	50.41	45.83	−23	−8	30.64	38.69	−14	−9	28.40	28.99	+26	−2
25	23.66	49.09	−33	0	49.46	45.63	−11	−10	30.22	38.39	−1	−9	28.69	28.69	+26	+2
26	22.47	49.07	−34	−4	48.53	45.43	+4	−10	29.83	38.09	+12	−8	29.00	28.39	+18	+5
27	21.27	49.05	−29	−7	47.61	45.22	+17	−8	29.46	37.79	+23	−5	29.33	28.08	+7	+7
28	20.08	49.02	−19	−9	46.71	45.01	+25	−4	29.12	37.48	+26	−1	29.69	27.78	−7	+8
29	18.90	48.98	−5	−10	45.83	44.79	+27	0	28.79	37.17	+23	+3	30.06	27.49	−18	+6
30	17.71	48.94	+10	−9					28.49	36.86	+14	+6	30.46	27.19	−25	+4
31	16.53	48.89	+22	−6					28.21	36.55	+1	+8	30.88	26.90	−26	0
32	15.35	48.83	+27	−2					27.96	36.24	−12	+7				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+88° 58′ 20″	55.750	+ 55.741	+88° 58′ 30″	55.901	+ 55.892	+88° 58′ 40″	56.053	+ 56.044
30	55.901	+ 55.892	40	56.053	+ 56.044	50	56.206	+ 56.197

$\alpha_{1939.0} = 1^h\ 41^m\ 57^s.83$ $\delta_{1939.0} = +88°\ 58'\ 26''.35$

*) Tag der doppelten unteren Kulmination: April 18.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nb) α Ursae minoris $2^m\!.12$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$1^h 41^m$	$+88° 58'$	in $0\overset{s}{.}01$	in $0\overset{''}{.}01$	$1^h 41^m$	$+88° 58'$	in $0\overset{s}{.}01$	in $0\overset{''}{.}01$	$1^h 42^m$	$+88° 58'$	in $0\overset{s}{.}01$	in $0\overset{''}{.}01$	$1^h 43^m$	$+88° 58'$	in $0\overset{s}{.}01$	in $0\overset{''}{.}01$
1	30.88	26.90	−26	0	53.12	19.35	+11	−6	26.69	16.16	+31	0	5.22	17.92	+6	+6
2	31.32	26.60	−21	−3	54.09	19.17	+22	−4	27.92	16.14	+29	+2	6.43	18.06	−6	+6
3	31.78	26.31	−9	−5	55.07	19.00	+29	−2	29.15	16.12	+22	+5	7.64	18.20	−17	+5
4	32.26	26.03	+4	−6	56.07	18.83	+30	+1	30.39	16.11	+12	+6	8.84	18.35	−25	+2
5	32.76	25.74	+17	−5	57.08	18.67	+26	+3	31.63	16.10	+1	+7	10.04	18.50	−31	−1
6	33.28	25.46	+26	−3	58.10	18.51	+19	+5	32.87	16.10	−10	+6	11.23	18.66	−32	−4
7	33.82	25.18	+31	−1	59.14	18.35	+8	+6	34.12	16.10	−21	+4	12.42	18.82	−26	−7
8	34.38	24.90	+30	+2	60.18	18.20	−4	+6	35.36	16.11	−29	+1	13.60	18.99	−17	−9
9	34.96	24.63	+25	+4	61.24	18.05	−16	+5	36.61	16.13	−33	−2	14.77	19.17	−3	−10
10	35.56	24.36	+14	+6	62.31	17.91	−26	+3	37.86	16.15	−30	−6	15.94	19.35	+10	−9
11	36.18	24.09	+3	+7	63.39	17.77	−32	0	39.11	16.17	−23	−8	17.10	19.53	+20	−6
12	36.82	23.83	−9	+6	64.48	17.64	−33	−3	40.37	16.20	−11	−10	18.25	19.72	+26	−2
13	37.47	23.57	−20	+5	65.58	17.52	−27	−7	41.62	16.24	+4	−10	19.39	19.91	+24	+2
14	38.15	23.31	−28	+2	66.69	17.40	−17	−9	42.87	16.28	+16	−7	20.53	20.11	+16	+6
15	38.84	23.06	−32	−1	67.81	17.28	−4	−9	44.13	16.32	+25	−4	21.65	20.31	+2	+8
16	39.55	22.81	−30	−5	68.93	17.17	+11	−8	45.38	16.37	+27	0	22.77	20.52	−11	+8
17	40.28	22.56	−23	−7	70.07	17.07	+22	−6	46.64	16.43	+22	+4	23.89	20.73	−22	+6
18	41.02	22.32	−11	−9	71.21	16.97	+28	−2	47.89	16.49	+11	+7	24.99	20.94	−26	+3
19	41.78	22.08	+3	−9	72.36	16.88	+26	+2	49.15	16.56	−3	+8	26.09	21.16	−24	0
20	42.56	21.85	+16	−7	73.52	16.79	+18	+6	50.40	16.63	−15	+7	27.18	21.38	−15	−3
21	43.35	21.62	+26	−4	74.69	16.71	+5	+8	51.65	16.71	−23	+5	28.25	21.61	−2	−5
22	44.16	21.39	+28	0	75.86	16.63	−9	+8	52.90	16.79	−25	+2	29.32	21.84	+12	−5
23	44.99	21.17	+23	+4	77.04	16.56	−19	+6	54.15	16.88	−20	−2	30.38	22.07	+23	−4
24	45.83	20.95	+13	+7	78.23	16.49	−25	+3	55.39	16.98	−9	−4	31.43	22.31	+31	−1
25	46.69	20.73	−1	+8	79.42	16.43	−24	0	56.63	17.08	+4	−5	32.47	22.55	+33	+1
26	47.57	20.52	−13	+7	80.62	16.37	−17	−3	57.87	17.18	+16	−5	33.49	22.80	+29	+4
27	48.46	20.31	−23	+5	81.82	16.32	−5	−5	59.10	17.29	+26	−3	34.51	23.05	+20	+6
28	49.36	20.11	−26	+2	83.03	16.27	+8	−6	60.33	17.41	+31	−1	35.52	23.31	+10	+7
29	50.28	19.91	−22	−2	84.25	16.23	+19	−5	61.56	17.53	+30	+2	36.52	23.57	−1	+7
30	51.21	19.72	−14	−4	85.47	16.19	+27	−3	62.78	17.66	+25	+4	37.50	23.83	−12	+6
31	52.16	19.53	−1	−6	86.69	16.16	+31	0	64.00	17.79	+16	+6	38.47	24.10	−22	+4
32	53.12	19.35	+11	−6					65.22	17.92	+6	+6	39.43	24.37	−28	+1

δ	sec δ	tg δ	δ	sec δ	tg δ
+88° 58′ 10″	55.600	+ 55.591	+88° 58′ 20″	55.750	+ 55.741
20	55.750	+ 55.741	30	55.901	+ 55.892

$\alpha_{1939.0} = 1^h\ 41^m\ 57\overset{s}{.}83$ $\delta_{1939.0} = +88°\ 58'\ 26\overset{''}{.}35$

Nb) α Ursae minoris $2^m_{\cdot}12$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
		+	in			+	in			+	in			+	in	
	$1^h\ 43^m$	88° 58′	$0^s.01$	0″.01	$1^h\ 44^m$	88° 58′	$0^s.01$	0″.01	$1^h\ 43^m$	88° 58′	$0^s.01$	0″.01	$1^h\ 43^m$	88° 58′	$0^s.01$	0″.01
	s	″			s	″			s	″			s	″		
1	39.43	24.37	−28	+1	2.05	33.92	−22	−7	69.63	45.72	+24	−3	58.67	55.95	+11	+6
2	40.38	24.65	−30	−2	2.57	34.27	−12	−8	69.55	46.09	+23	+1	58.00	56.25	−2	+7
3	41.32	24.93	−27	−6	3.07	34.63	0	−9	69.46	46.45	+17	+4	57.32	56.54	−15	+7
4	42.24	25.21	−20	−8	3.56	34.98	+12	−8	69.34	46.82	+5	+7	56.62	56.83	−24	+4
5	43.16	25.49	−9	−9	4.03	35.34	+21	−5	69.20	47.18	−9	+7	55.91	57.12	−27	+1
6	44.06	25.78	+4	−9	4.48	35.71	+24	−2	69.04	47.54	−20	+6	55.17	57.40	−23	−2
7	44.95	26.07	+16	−7	4.91	36.07	+21	+2	68.86	47.91	−27	+3	54.42	57.68	−13	−5
8	45.83	26.36	+24	−4	5.32	36.44	+12	+5	68.67	48.27	−27	−1	53.65	57.95	−1	−6
9	46.69	26.66	+24	0	5.72	36.80	0	+7	68.45	48.62	−21	−4	52.86	58.22	+12	−6
10	47.54	26.96	+19	+4	6.10	37.17	−14	+7	68.21	48.98	−9	−6	52.06	58.49	+24	−4
11	48.38	27.27	+7	+7	6.46	37.53	−24	+5	67.95	49.34	+6	−6	51.24	58.75	+30	−1
12	49.20	27.58	−6	+7	6.80	37.90	−28	+1	67.67	49.69	+18	−5	50.40	59.00	+31	+2
13	50.01	27.89	−18	+6	7.12	38.27	−25	−2	67.38	50.05	+28	−2	49.55	59.25	+26	+5
14	50.81	28.21	−26	+4	7.43	38.64	−15	−4	67.06	50.40	+32	0	48.68	59.50	+18	+6
15	51.59	28.52	−27	+1	7.71	39.01	−2	−6	66.72	50.75	+30	+3	47.80	59.74	+7	+7
16	52.36	28.84	−21	−2	7.98	39.38	+12	−5	66.36	51.10	+24	+6	46.90	59.97	−5	+7
17	53.11	29.16	−9	−5	8.23	39.75	+24	−4	65.98	51.44	+14	+7	45.99	60.20	−17	+5
18	53.85	29.49	+6	−5	{8.46 {8.67	40.12 40.50	+31 +33	−1} +2}	65.59	51.78	+3	+7	45.06	60.43	−25	+3
19	54.58	29.81	+19	−5	8.87	40.87	+29	+5	65.17	52.12	−10	+7	44.12	60.65	−30	0
20	55.29	30.14	+27	−2	9.04	41.25	+20	+6	64.73	52.46	−21	+5	43.17	60.87	−29	−4
21	55.98	30.48	+33	0	9.20	41.62	+9	+7	64.28	52.79	−27	+2	42.20	61.08	−24	−7
22	56.66	30.81	+32	+3	9.34	41.99	−3	+7	63.80	53.12	−29	−2	41.22	61.29	−13	−9
23	57.32	31.15	+25	+6	9.46	42.37	−14	+6	63.31	53.45	−27	−5	40.22	61.49	−1	−9
24	57.97	31.49	+15	+7	9.55	42.74	−23	+3	62.79	53.77	−19	−7	39.21	61.68	+11	−8
25	58.60	31.83	+4	+7	9.63	43.12	−28	0	62.26	54.09	−8	−8	38.19	61.87	+21	−5
26	59.22	32.17	−8	+6	9.69	43.49	−29	−3	61.71	54.41	+4	−8	37.16	62.05	+26	−1
27	59.82	32.52	−18	+5	9.73	43.86	−24	−6	61.14	54.73	+16	−7	36.11	62.23	+24	+2
28	60.40	32.87	−26	+2	9.75	44.23	−15	−8	60.55	55.04	+23	−4	35.05	62.40	+16	+6
29	60.97	33.21	−29	−1	9.75	44.61	−3	−9	59.94	55.35	+25	0	33.98	62.56	+3	+7
30	61.52	33.56	−28	−4	9.73	44.98	+9	−8	59.32	55.65	+20	+4	32.90	62.72	−9	+7
31	62.05	33.92	−22	−7	9.69	45.35	+19	−6	58.67	55.95	+11	+6	31.81	62.87	−20	+6
32					9.63	45.72	+24	−3					30.71	63.02	−26	+3

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+88° 58′ 20″	55.750	+ 55.741	+88° 58′ 40″	56.053	+ 56.044	+88° 59′ 0″	56.359	+ 56.350
30	55.901	+ 55.892	50	56.206	+ 56.197	10	56.514	+ 56.505

$\alpha_{1939.0} = 1^h\ 41^m\ 57^s.83$ $\delta_{1939.0} = +88°\ 58'\ 26''.35$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nc) Grb 750 $6^m_.70$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
	$4^h 16^m$	$+85° 23'$	in $0^s_.01$	in $0''_.01$	$4^h 16^m$	$+85° 23'$	in $0^s_.01$	in $0''_.01$	$4^h 16^m$	$+85° 23'$	in $0^s_.01$	in $0''_.01$	$4^h 16^m$	$+85° 23'$	in $0^s_.01$	in $0''_.01$
1	$55^s_.48$	$36''_.00$	−8	−6	$50^s_.12$	$42''_.83$	+4	−5	$43^s_.08$	$44''_.47$	+5	−4	$35^s_.68$	$40''_.79$	+2	+8
2	55.37	36.28	−5	−8	49.89	42.97	+7	−1	42.82	44.44	+7	0	35.48	40.59	−1	+8
3	55.26	36.56	−1	−9	49.66	43.10	+7	+3	42.56	44.40	+6	+5	35.29	40.39	−4	+6
4	55.14	36.84	+3	−7	49.43	43.23	+6	+6	42.29	44.35	+4	+7	35.09	40.18	−5	+3
5	55.02	37.11	+6	−4	49.19	43.36	+3	+9	42.03	44.30	+1	+9	34.91	39.97	−5	−1
6	54.89	37.38	+8	0	48.95	43.47	0	+9	41.78	44.25	−2	+8	34.72	39.75	−4	−4
7	54.75	37.65	+8	+5	48.71	43.59	−2	+7	41.52	44.19	−4	+5	34.54	39.52	−1	−6
8	54.61	37.91	+6	+8	48.47	43.69	−4	+4	41.26	44.12	−5	+2	34.36	39.30	+2	−7
9	54.47	38.17	+2	+9	48.22	43.79	−5	0	41.01	44.05	−4	−2	34.19	39.07	+4	−6
10	54.32	38.42	−1	+8	47.97	43.88	−4	−3	40.75	43.97	−3	−5	34.02	38.83	+6	−4
11	54.17	38.67	−3	+6	47.72	43.97	−1	−6	40.50	43.88	0	−7	33.85	38.59	+7	−2
12	54.02	38.91	−5	+2	47.47	44.05	+2	−7	40.25	43.79	+3	−7	33.69	38.35	+7	+1
13	53.86	39.16	−4	−2	47.22	44.12	+4	−6	40.00	43.69	+5	−6	33.53	38.10	+6	+4
14	53.70	39.39	−3	−5	46.97	44.19	+6	−5	39.75	43.59	+7	−3	33.38	37.86	+4	+6
15	53.53	39.62	0	−6	46.72	44.25	+7	−3	39.51	43.48	+8	−1	33.23	37.60	+1	+7
16	53.36	39.85	+2	−7	46.46	44.31	+7	0	39.26	43.36	+7	+2	33.09	37.35	−2	+7
17	53.18	40.08	+4	−6	46.20	44.36	+6	+3	39.02	43.24	+5	+5	32.95	37.09	−5	+5
18	53.00	40.29	+6	−4	45.95	44.40	+4	+5	38.78	43.12	+3	+6	32.81	36.83	−8	+3
19	52.82	40.51	+7	−2	45.69	44.44	+1	+6	38.54	42.98	0	+7	32.68	36.56	−9	0
20	52.63	40.72	+6	+1	45.43	44.47	−2	+7	38.30	42.84	−3	+6	32.55	36.29	−8	−3
21	52.44	40.92	+5	+4	45.17	44.49	−5	+6	38.07	42.70	−6	+4	32.43	36.02	−6	−6
22	52.25	41.12	+3	+6	44.91	44.51	−8	+4	37.84	42.55	−8	+2	32.31	35.74	−3	−8
23	52.05	41.32	0	+7	44.65	44.52	−9	+1	37.61	42.40	−9	−1	32.19	35.47	0	−8
24	51.85	41.51	−3	+6	44.39	44.53	−9	−3	37.38	42.24	−8	−5	32.08	35.19	+4	−6
25	51.64	41.69	−6	+5	44.13	44.53	−8	−6	37.16	42.08	−6	−7	31.98	34.91	+6	−2
26	51.44	41.87	−9	+2	43.87	44.52	−5	−8	36.94	41.91	−2	−8	31.88	34.63	+7	+1
27	51.22	42.04	−10	−1	43.60	44.51	−1	−9	36.72	41.74	+1	−8	31.79	34.34	+6	+5
28	51.01	42.21	−9	−5	43.34	44.49	+3	−7	36.51	41.56	+4	−5	31.70	34.06	+3	+7
29	50.79	42.37	−7	−7	43.08	44.47	+5	−4	36.30	41.37	+6	−1	31.62	33.77	0	+8
30	50.57	42.53	−3	−9					36.09	41.18	+7	+3	31.54	33.48	−3	+7
31	50.35	42.68	+1	−8					35.88	40.99	+5	+6	31.47	33.19	−5	+4
32	50.12	42.83	+4	−5					35.68	40.79	+2	+8				

δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 23′ 30″	12.446	+ 12.406	+85° 23′ 40″	12.454	+ 12.414
40	12.454	+ 12.414	50	12.461	+ 12.421

$\alpha_{1939.0} = 4^h\ 16^m\ 34^s_.53$ $\delta_{1939.0} = +85°\ 23'\ 28''_.42$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nc) Grb 750 $6^m.70$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder	
	$4^h\,16^m$	$+85°\,23'$	in $0^s.01$	in $0''.01$	$4^h\,16^m$	$+85°\,23'$	in $0^s.01$	in $0''.01$
1	31.47	33.19	−5	+4	31.62	23.87	−1	−7
2	31.40	32.89	−6	+1	31.70	23.58	+2	−7
3	31.33	32.60	−5	−3	31.79	23.29	+4	−6
4	31.27	32.30	−3	−6	31.88	23.00	+6	−4
5	31.22	32.00	0	−7	31.98	22.71	+7	−1
6	31.17	31.71	+3	−7	32.09	22.42	+7	+1
7	31.12	31.41	+5	−6	32.19	22.14	+5	+4
8	31.08	31.10	+7	−3	32.30	21.86	+3	+6
9	31.05	30.80	+7	0	32.42	21.58	0	+7
10	31.02	30.50	+6	+3	32.54	21.30	−3	+7
11	30.99	30.20	+5	+5	32.67	21.02	−6	+5
12	30.97	29.89	+2	+6	32.79	20.75	−8	+2
13	30.96	29.59	−1	+7	32.93	20.48	−9	−1
14	30.95	29.29	−4	+6	33.07	20.21	−9	−4
15	30.94	28.98	−7	+4	33.21	19.95	−6	−7
16	30.94	28.68	−9	+1	33.35	19.68	−3	−8
17	30.95	28.38	−9	−2	33.51	19.42	+1	−8
18	30.96	28.07	−7	−6	33.66	19.16	+4	−6
19	30.97	27.77	−5	−8	33.82	18.91	+6	−2
20	30.99	27.46	−1	−8	33.99	18.66	+7	+2
21	31.01	27.16	+3	−7	34.15	18.41	+6	+6
22	31.04	26.85	+6	−4	34.33	18.16	+3	+8
23	31.08	26.55	+7	0	34.50	17.92	0	+8
24	31.12	26.25	+7	+4	34.68	17.68	−3	+7
25	31.16	25.95	+5	+7	34.86	17.44	−5	+4
26	31.21	25.65	+2	+8	35.05	17.21	−5	0
27	*)31.27	25.35	−1	+8	35.24	16.98	−4	−3
28	31.33	25.05	−4	+5	35.43	16.75	−2	−6
29	31.39	24.76	−5	+2	35.63	16.53	+1	−7
30	31.46	24.46	−5	−1	35.83	16.31	+4	−6
31	31.54	24.16	−4	−5	36.04	16.09	+6	−5
32	31.62	23.87	−1	−7				

Tag	Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$4^h\,16^m$	$+85°\,23'$	in $0^s.01$	in $0''.01$	$4^h\,16^m$	$+85°\,23'$	in $0^s.01$	in $0''.01$
1	36.04	16.09	+6	−5	43.88	11.35	+5	+4
2	36.25	15.88	+7	−2	44.17	11.27	+2	+6
3	36.46	15.67	+7	0	44.47	11.19	0	+7
4	36.68	15.47	+6	+3	44.76	11.12	−3	+6
5	36.90	15.26	+4	+5	45.05	11.05	−6	+4
6	37.12	15.07	+1	+6	45.35	10.98	−8	+2
7	37.35	14.87	−2	+7	45.64	10.92	−9	−2
8	37.58	14.68	−5	+6	45.94	10.86	−9	−5
9	37.81	14.49	−8	+3	46.24	10.81	−6	−8
10	38.05	14.31	−9	0	46.54	10.76	−3	−9
11	38.28	14.13	−9	−3	46.84	10.72	+1	−8
12	38.53	13.95	−8	−6	47.14	10.68	+4	−6
13	38.77	13.78	−5	−8	47.45	10.65	+6	−2
14	39.02	13.62	−1	−8	47.75	10.62	+6	+2
15	39.27	13.45	+3	−7	48.06	10.60	+5	+6
16	39.52	13.30	+6	−4	48.36	10.58	+3	+8
17	39.77	13.14	+7	0	48.67	10.57	0	+8
18	40.03	12.99	+7	+4	48.98	10.56	−3	+6
19	40.29	12.85	+5	+7	49.29	10.55	−5	+3
20	40.55	12.71	+2	+8	49.60	10.55	−5	0
21	40.82	12.57	−1	+8	49.91	10.56	−4	−4
22	41.09	12.44	−4	+5	50.22	10.57	−1	−6
23	41.36	12.31	−5	+2	50.53	10.58	+2	−7
24	41.63	12.19	−4	−2	50.84	10.60	+5	−6
25	41.91	12.07	−2	−5	51.15	10.63	+7	−4
26	42.18	11.95	0	−7	51.46	10.66	+8	−1
27	42.46	11.84	+3	−7	51.77	10.69	+7	+2
28	42.74	11.73	+6	−5	52.08	10.73	+6	+4
29	43.02	11.63	+7	−3	52.39	10.77	+4	+6
30	43.31	11.53	+7	0	52.70	10.82	+1	+6
31	43.60	11.44	+7	+2	53.02	10.88	−2	+6
32	43.88	11.35	+5	+4	53.33	10.93	−5	+5

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 23′ 10″	12.432	+ 12.391	+85° 23′ 20″	12.439	+ 12.399	+85° 23′ 30″	12.446	+ 12.406
20	12.439	+ 12.399	30	12.446	+ 12.406	40	12.454	+ 12.414

$\alpha_{1939.0} = 4^h\,16^m\,34^s.53$ $\delta_{1939.0} = +85°\,23'\,28''.42$

*) Tag der doppelten unteren Kulmination: Mai 27.



Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nc) Grb 750 $6^m.70$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		+	in			+	in			+	in			+	in	
	$4^h 16^m$	$85° 23'$	$0^s.01$	$0''.01$	$4^h 17^m$	$85° 23'$	$0^s.01$	$0''.01$	$4^h 17^m$	$85° 23'$	$0^s.01$	$0''.01$	$4^h 17^m$	$85° 23'$	$0^s.01$	$0''.01$
	s	"			s	"			s	"			s	"		
1	53.33	10.93	−5	+5	2.29	14.73	−8	−2	9.64	22.35	0	−8	13.41	32.29	+6	+3
2	53.64	11.00	−7	+3	2.57	14.92	−7	−5	9.82	22.65	+3	−6	13.45	32.62	+4	+6
3	53.95	11.06	−9	0	2.84	15.12	−5	−7	10.01	22.94	+5	−2	13.49	32.96	+1	+8
4	54.26	11.13	−9	−3	3.11	15.32	−2	−8	10.18	23.24	+6	+1	13.53	33.29	−2	+7
5	54.57	11.21	−7	−6	3.39	15.53	+1	−7	10.36	23.54	+5	+5	13.56	33.63	−4	+5
6	54.88	11.29	−5	−8	3.65	15.74	+4	−5	10.53	23.85	+2	+7	13.59	33.97	−6	+1
7	55.19	11.37	−1	−8	3.92	15.95	+6	−1	10.70	24.16	−1	+8	13.61	34.30	−5	−2
8	55.50	11.46	+3	−7	4.18	16.17	+6	+2	10.86	24.46	−3	+7	13.63	34.63	−4	−5
9	55.81	11.56	+5	−4	4.45	16.39	+4	+6	11.02	24.78	−5	+4	13.64	34.97	−1	−7
10	56.12	11.65	+6	0	4.70	16.61	+1	+8	11.17	25.09	−6	0	13.64	35.30	+2	−7
11	56.42	11.76	+5	+4	4.96	16.84	−2	+7	11.32	25.40	−5	−3	13.65	35.63	+5	−6
12	56.73	11.87	+3	+7	5.21	17.07	−4	+5	11.46	25.72	−2	−6	13.64	35.96	+7	−3
13	57.03	11.98	0	+8	5.46	17.30	−6	+2	11.60	26.04	+1	−7	13.63	36.29	+8	0
14	57.34	12.09	−3	+7	5.71	17.54	−6	−1	11.74	26.35	+4	−6	13.62	36.61	+7	+2
15	57.64	12.22	−5	+5	5.96	17.78	−4	−4	11.87	26.68	+7	−5	13.60	36.94	+5	+5
16	57.94	12.34	−5	+1	6.20	18.02	−1	−6	12.00	27.00	+8	−2	13.57	37.26	+3	+6
17	58.24	12.47	−4	−2	6.44	18.27	+2	−7	12.12	27.32	+8	+1	13.54	37.59	0	+7
18	58.54	12.60	−2	−5	6.68	18.52	+5	−6	12.24	27.65	+7	+4	13.51	37.91	−3	+6
19	58.84	12.74	+1	−7	6.91	18.78	+8	−4	12.35	27.98	+5	+6	13.47	38.23	−6	+4
20	59.14	12.88	+4	−6	7.14	19.04	+8	−1	12.46	28.30	+2	+7	13.42	38.54	−8	+2
21	59.43	13.03	+7	−5	7.37	19.30	+8	+2	12.56	28.63	−1	+7	13.37	38.86	−9	−2
22	59.73	13.18	+8	−2	7.59	19.56	+6	+5	12.66	28.96	−4	+5	13.32	39.17	−8	−5
23	60.02	13.34	+8	+1	7.81	19.83	+4	+6	12.76	29.29	−7	+3	13.26	39.48	−6	−7
24	60.31	13.50	+7	+3	8.03	20.10	+1	+7	12.85	29.62	−8	0	13.19	39.79	−3	−8
25	60.60	13.66	+5	+5	8.24	20.37	−2	+6	12.94	29.96	−8	−3	13.12	40.10	+1	−8
26	60.89	13.83	+2	+7	8.45	20.64	−5	+5	13.02 13.10	30.29 30.62	−7 −4	−6 −7	13.04	40.41	+4	−5
27	61.17	14.00	−1	+7	8.66	20.92	−7	+2	13.17	30.96	−1	−8	12.96	40.71	+6	−2
28	61.45	14.18	−4	+6	8.86	21.20	−8	−1	13.24	31.29	+2	−6	12.88	41.01	+6	+2
29	61.74	14.36	−6	+4	9.06	21.48	−8	−4	13.30	31.62	+5	−4	12.79	41.30	+5	+6
30	62.01	14.54	−8	+1	9.26	21.77	−6	−6	13.35	31.96	+6	0	12.69	41.60	+2	+8
31	62.29	14.73	−8	−2	9.45	22.06	−3	−8	13.41	32.29	+6	+3	12.59	41.89	−1	+8
32					9.64	22.35	0	−8					12.49	42.18	−3	+6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 23′ 10″	12.432	+ 12.391	+85° 23′ 20″	12.439	+ 12.399	+85° 23′ 40″	12.454	+ 12.414
20	12.439	+ 12.399	30	12.446	+ 12.406	50	12.461	+ 12.421

$\alpha_{1939.0} = 4^h\ 16^m\ 34^s.53$ $\delta_{1939.0} = +85°\ 23'\ 28''.42$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nd) 51 Hev. Cephei $5^m.26$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
	$7^h 13^m$	$+87° 8'$	in $0^s.01$	in $0''.01$	$7^h 13^m$	$+87° 8'$	in $0^s.01$	in $0''.01$	$7^h 12^m$	$+87° 8'$	in $0^s.01$	in $0''.01$	$7^h 12^m$	$+87° 8'$	in $0^s.01$	in $0''.01$
1	10.19	34.24	−14	+5	10.72	44.19	0	−7	64.20	51.43	+ 3	−7	52.17	55.09	+ 9	+5
2	10.34	34.54	−15	+1	10.59	44.49	+ 7	−6	63.87	51.63	+ 8	−4	51.74	55.11	+ 5	+7
3	10.49	34.85	−13	−3	10.45	44.79	+11	−3	63.54	51.82	+11	0	51.32	55.13	+ 1	+7
4	10.63	35.16	− 9	−6	10.31	45.08	+13	+1	63.20	52.01	+11	+3	50.89	55.14	− 4	+6
5	10.76	35.46	− 3	−8	10.16	45.38	+12	+4	62.85	52.20	+ 9	+6	50.47	55.15	− 7	+3
6	10.87	35.77	+ 4	−7	9.99	45.67	+ 8	+7	62.50	52.38	+ 4	+7	50.05	55.15	− 8	−1
7	10.98	36.08	+10	−5	9.82	45.96	+ 3	+7	62.15	52.55	− 1	+7	49.63	55.14	− 7	−4
8	11.08	36.39	+13	−1	9.65	46.24	− 2	+6	61.79	52.72	− 5	+5	49.20	55.13	− 4	−7
9	11.17 11.26	36.70 37.02	+14 +11	+2 +5	9.46	46.53	− 6	+3	61.42	52.89	− 7	+1	48.78	55.11	0	−8
10	11.33	37.33	+ 6	+7	9.26	46.81	− 7	−1	61.05	53.05	− 7	−3	48.36	55.09	+ 4	−8
11	11.40	37.64	+ 1	+7	9.06	47.09	− 7	−4	60.68	53.20	− 6	−6	47.94	55.06	+ 7	−7
12	11.45	37.96	− 4	+5	8.85	47.36	− 4	−7	60.30	53.35	− 2	−8	47.52	55.02	+10	−4
13	11.50	38.27	− 7	+1	8.63	47.63	− 1	−8	59.92	53.49	+ 2	−8	47.10	54.98	+10	−1
14	11.54	38.59	− 7	−2	8.41	47.90	+ 3	−8	59.54	53.63	+ 5	−7	46.69	54.93	+ 9	+2
15	11.57	38.91	− 6	−5	8.18	48.16	+ 6	−7	59.15	53.76	+ 8	−6	46.28	54.88	+ 7	+5
16	11.59	39.22	− 4	−7	7.94	48.42	+ 8	−4	58.76	53.88	+10	−3	45.87	54.82	+ 3	+7
17	11.60	39.54	0	−8	7.69	48.68	+10	−1	58.36	54.00	+10	0	45.46	54.75	− 2	+8
18	11.60	39.86	+ 3	−7	7.43	48.93	+ 9	+1	57.97	54.12	+ 8	+3	45.05	54.68	− 6	+8
19	11.60	40.17	+ 6	−6	7.17	49.18	+ 7	+4	57.56	54.22	+ 5	+6	44.64	54.60	−10	+6
20	11.58	40.49	+ 8	−3	6.90	49.42	+ 3	+7	57.16	54.32	+ 1	+7	44.24	54.52	−13	+3
21	11.55	40.80	+ 9	0	6.62	49.66	− 1	+8	56.75	54.42	− 3	+8	43.84	54.43	−13	−1
22	11.52	41.12	+ 8	+3	6.34	49.90	− 6	+8	56.34	54.51	− 8	+7	43.44	54.33	−10	−4
23	11.48	41.43	+ 6	+6	6.05	50.13	−10	+6	55.93	54.60	−12	+5	43.04	54.23	− 6	−6
24	11.43	41.74	+ 2	+7	5.76	50.36	−14	+4	55.52	54.67	−14	+1	42.65	54.13	− 1	−7
25	11.37	42.05	− 3	+8	5.46	50.58	−15	0	55.11	54.75	−13	−2	42.26	54.01	+ 5	−6
26	11.30	42.36	− 8	+8	5.15	50.80	−13	−3	54.69	54.81	−10	−5	41.88	53.90	+ 9	−3
27	11.23	42.67	−12	+6	4.84	51.01	− 9	−6	54.28	54.87	− 5	−7	41.49	53.78	+11	0
28	11.14	42.98	−15	+3	4.52	51.22	− 3	−7	53.86	54.93	+ 1	−7	41.12	53.65	+10	+4
29	11.05	43.28	−15	−1	4.20	51.43	+ 3	−7	53.44	54.98	+ 6	−5	40.74	53.52	+ 7	+6
30	10.95	43.59	−12	−5					53.01	55.02	+10	−2	40.37	53.38	+ 3	+7
31	10.84	43.89	− 6	−7					52.59	55.06	+11	+2	40.00	53.24	− 2	+6
32	10.72	44.19	0	−7					52.17	55.09	+ 9	+5				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+87° 8′ 30″	20.053	+ 20.028	+87° 8′ 40″	20.073	+ 20.048	+87° 8′ 50″	20.092	+ 20.068
40	20.073	+ 20.048	50	20.092	+ 20.068	60	20.112	+ 20.087

$\alpha_{1939.0} = 7^h\ 12^m\ 38^s.94$ $\delta_{1939.0} = +87°\ 8'\ 45''.91$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nd) 51 Hev. Cephei $5^m.26$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$7^h 12^m$	+87° 8′	in 0.01^s $0.01''$	$7^h 12^m$	+87° 8′	in 0.01^s $0.01''$	$7^h 12^m$	+87° 8′	in 0.01^s $0.01''$	$7^h 12^m$	+87° 8′	in 0.01^s $0.01''$
1	40.00	53.24	−2 +6	31.19	46.56	−7 −4	28.75	37.45	+2 −8	33.13	27.68	+10 0
2	39.64	53.09	−6 +4	31.01	46.29	−4 −7	28.79	37.13	+6 −7	33.38	27.38	+8 +3
3	39.28	52.94	−8 +1	30.83	46.01	0 −8	28.83	36.81	+8 −4	33.63	27.09	+5 +6
4	38.93	52.78	−8 −3	30.66	45.73	+4 −7	28.88	36.48	+10 −2	33.89	26.79	+1 +7
5	38.58	52.61	−6 −6	30.49	45.45	+7 −6	28.93	36.16	+9 +1	34.16	26.50	−4 +8
6	38.24	52.45	−2 −8	30.33	45.16	+9 −3	29.00	35.84	+7 +4	34.43	26.21	−8 +7
7	37.90	52.27	+2 −8	30.18	44.87	+10 0	29.07	35.52	+3 +7	34.71	25.93	−13 +5
8	37.56	52.09	+5 −7	30.04	44.58	+9 +3	29.14	35.19	−1 +8	35.00	25.64	−15 +2
9	37.23	51.91	+8 −5	29.90	44.29	+6 +6	29.23	34.87	−6 +8	35.30	25.36	−14 −2
10	36.90	51.72	+10 −2	29.77	44.00	+2 +8	29.32	34.55	−10 +7	35.60	25.08	−12 −5
11	36.58	51.53	+10 +1	29.65	43.70	−3 +8	*)29.43	34.23	−14 +4	35.90	24.80	−6 −6
12	36.27	51.33	+8 +4	29.53	43.40	−8 +8	29.53	33.91	−15 0	36.21	24.52	0 −7
13	35.96	51.13	+5 +6	29.43	43.10	−12 +5	29.65	33.59	−13 −3	36.53	24.25	+6 −5
14	35.65	50.92	0 +8	29.33	42.80	−14 +2	29.77	33.27	−9 −6	36.85	23.98	+10 −2
15	35.36	50.71	−5 +8	29.23	42.49	−13 −1	29.90	32.95	−3 −7	37.17	23.71	+12 +1
16	35.06	50.50	−9 +7	29.15	42.19	−10 −5	30.03	32.63	+4 −6	37.50	23.45	+10 +5
17	34.77	50.28	−12 +4	29.07	41.88	−5 −7	30.18	32.32	+9 −4	37.84	23.19	+7 +7
18	34.49	50.06	−13 0	29.00	41.57	+1 −7	30.33	32.00	+12 −1	38.18	22.93	+2 +7
19	34.21	49.83	−12 −3	28.94	41.26	+7 −6	30.48	31.68	+12 +3	38.53	22.67	−3 +6
20	33.94	49.60	−8 −6	28.88	40.95	+11 −3	30.64	31.37	+9 +6	38.89	22.42	−6 +3
21	33.67	49.37	−2 −7	28.83	40.63	+13 +1	30.81	31.05	+5 +7	39.24	22.17	−7 −1
22	33.41	49.13	+4 −7	28.79	40.32	+11 +4	30.99	30.74	0 +7	39.61	21.92	−6 −5
23	33.16	48.89	+9 −5	28.76	40.01	+7 +6	31.17	30.43	−4 +4	39.98	21.68	−3 −7
24	32.92	48.64	+11 −1	28.73	39.69	+3 +7	31.36	30.12	−7 +1	40.35	21.44	+1 −8
25	32.68	48.39	+12 +2	28.71	39.37	−2 +6	31.56	29.81	−7 −3	40.72	21.20	+5 −8
26	32.44	48.14	+9 +5	28.70	39.05	−6 +3	31.76	29.50	−5 −5	41.11	20.97	+8 −6
27	32.22	47.89	+5 +7	28.70	38.73	−8 0	31.97	29.19	−2 −7	41.49	20.74	+10 −4
28	32.00	47.63	0 +7	28.70	38.41	−7 −4	32.19	28.89	+2 −8	41.88	20.51	+10 −1
29	31.79	47.37	−5 +5	28.71	38.09	−5 −6	32.41	28.58	+5 −7	42.28	20.29	+9 +2
30	31.58	47.10	−8 +2	28.73	37.77	−1 −8	32.64	28.28	+8 −5	42.68	20.06	+7 +4
31	31.38	46.83	−8 −1	28.75	37.45	+2 −8	32.88	27.98	+10 −3	43.08	19.85	+3 +7
32	31.19	46.56	−7 −4				33.13	27.68	+10 0	43.49	19.63	−1 +8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+87° 8′ 10″	20.015	+19.990	+87° 8′ 30″	20.053	+20.028	+87° 8′ 50″	20.092	+20.068
20	20.034	+20.009	40	20.073	+20.048	60	20.112	+20.087

$\alpha_{1939.0} = 7^h\ 12^m\ 38^s.94$ $\delta_{1939.0} = +87°\ 8'\ 45''.91$

*) Tag der doppelten unteren Kulmination: Juli 11.

Obere Kulmination Greenwich

Nd) 51 Hev. Cephei $5^m.26$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$7^h\ 12^m$	$+87°\ 8'$	in 0.01^s	in $0.01''$	$7^h\ 12^m$	$+87°\ 8'$	in 0.01^s	in $0.01''$	$7^h\ 13^m$	$+87°\ 8'$	in 0.01^s	in $0.01''$	$7^h\ 13^m$	$+87°\ 8'$	in 0.01^s	in $0.01''$
1	43.49	19.63	−1	+8	57.37	15.00	−12	+4	13.04	14.52	−6	−6	26.48	18.57	+7	−4
2	43.90	19.42	−6	+7	57.87	14.91	−13	+1	13.54	14.58	−1	−7	26.86	18.78	+10	−1
3	44.32	19.21	−10	+6	58.37	14.83	−13	−2	14.03	14.65	+4	−5	27.23	18.99	+10	+2
4	44.74	19.01	−13	+3	58.87	14.75	−10	−5	14.52	14.73	+8	−3	27.60	19.21	+8	+5
5	45.17	18.81	−14	0	59.37	14.68	−5	−6	15.00	14.81	+10	+1	27.96	19.43	+3	+7
6	45.60	18.61	−13	−3	59.88	14.61	0	−6	15.49	14.89	+9	+4	28.31	19.65	−1	+7
7	46.03	18.42	−9	−6	60.38	14.54	+5	−5	15.97	14.98	+6	+6	28.66	19.88	−6	+5
8	46.47	18.23	−3	−7	60.89	14.48	+9	−2	16.45	15.07	+1	+7	29.00	20.11	−8	+2
9	46.91	18.04	+3	−6	61.40	14.42	+10	+2	16.93	15.17	−4	+7	29.34	20.35	−8	−1
10	47.35	17.86	+7	−3	61.90	14.37	+8	+5	17.40	15.27	−7	+4	29.67	20.59	−6	−5
11	47.80	17.68	+10	0	62.41	14.33	+4	+7	17.87	15.38	−9	+1	29.99	20.83	−3	−7
12	48.25	17.51	+10	+3	62.92	14.29	−1	+7	18.34	15.49	−8	−3	30.31	21.08	+1	−8
13	48.71	17.34	+7	+6	63.43	14.25	−5	+6	18.80	15.61	−5	−6	30.62	21.33	+5	−7
14	49.16	17.17	+3	+7	63.94	14.22	−8	+3	19.26	15.74	−1	−8	30.92	21.58	+9	−6
15	49.63	17.01	−2	+7	64.45	14.20	−8	−1	19.72	15.87	+4	−8	31.22	21.84	+11	−3
16	50.09	16.85	−5	+4	64.96	14.18	−6	−5	20.18	16.00	+7	−7	31.51	22.10	+11	0
17	50.56	16.70	−7	+1	65.47	14.16	−3	−7	20.63	16.14	+10	−5	31.79	22.37	+9	+3
18	51.03	16.55	−7	−3	65.98	14.15	+1	−8	21.08	16.28	+11	−2	32.07	22.63	+6	+6
19	51.51	16.41	−5	−6	66.49	14.14	+5	−8	21.52	16.43	+11	+1	32.33	22.91	+1	+7
20	51.99	16.26	−1	−8	67.01	14.14	+9	−6	21.96	16.58	+8	+4	32.59	23.18	−3	+8
21	52.47	16.13	+4	−8	67.52	14.15	+11	−3	22.39	16.74	+4	+6	32.84	23.46	−8	+7
22	52.95	16.00	+7	−7	68.02	14.16	+11	0	22.82	16.90	0	+7	33.09	23.74	−12	+4
23	53.43	15.87	+10	−5	68.53	14.17	+10	+3	23.25	17.07	−5	+7	33.32	24.02	−13	+1
24	53.91	15.74	+11	−2	69.04	14.19	+7	+5	23.67	17.24	−9	+6	33.55	24.30	−13	−2
25	54.40	15.63	+10	+1	69.54	14.22	+3	+7	24.09	17.42	−12	+3	33.78	24.59	−10	−5
26	54.89	15.51	+8	+4	70.05	14.25	−2	+8	24.50	17.60	−13	0	33.99	24.88	−5	−7
27	55.38	15.40	+5	+6	70.55	14.28	−6	+7	24.91	17.79	−11	−3	34.20	25.17	+1	−7
28	55.88	15.29	+1	+7	71.05	14.32	−10	+5	25.31	17.98	−7	−6	34.39	25.47	+6	−5
29	56.37	15.19	−4	+7	71.55	14.36	−12	+2	25.70	18.17	−2	−7	34.58	25.77	+10	−2
30	56.87	15.10	−8	+6	72.05	14.41	−12	−1	26.09	18.37	+3	−6	34.76	26.07	+11	+1
31	57.37	15.00	−12	+4	72.55	14.46	−10	−4	26.48	18.57	+7	−4	34.93	26.37	+10	+4
32					73.04	14.52	−6	−6					35.10	26.67	+6	+6

δ	sec δ	tg δ	δ	sec δ	tg δ
+87° 8′ 10″	20.015	+ 19.990	+87° 8′ 20″	20.034	+ 20.009
20	20.034	+ 20.009	30	20.053	+ 20.028

$\alpha_{1939.0} = 7^h\ 12^m\ 38^s.94$ $\delta_{1939.0} = +87°\ 8'\ 45''.91$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Ne) I Hev. Draconis $4^m\!.58$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
	$9^h 28^m$	$+81° 35'$	in $0^s.01$	in $0''.01$	$9^h 28^m$	$+81° 35'$	in $0^s.01$	in $0''.01$	$9^h 28^m$	$+81° 35'$	in $0^s.01$	in $0''.01$	$9^h 28^m$	$+81° 35'$	in $0^s.01$	in $0''.01$
1	$39^s.60$	$32''.46$	−4	+9	$42^s.49$	$39''.84$	−3	−4	$42^s.70$	$48''.59$	0	−7	$40^s.34$	$56''.56$	+4	+1
2	39.73	32.64	−5	+6	42.54	40.12	−1	−6	42.66	48.89	+2	−6	40.24	56.76	+3	+4
3	39.86	32.82	−5	+2	42.59	40.42	+1	−7	42.62	49.18	+4	−4	40.12	56.95	+2	+6
4	39.98	33.01	−4	−2	42.63	40.71	+3	−6	42.58	49.47	+5	−1	40.01	57.14	0	+6
5	40.10	33.20	−2	−6	42.67	41.00	+5	−4	42.53	49.76	+4	+2	39.90	57.32	−2	+4
6	40.22	33.39	0	−8	42.71	41.30	+5	0	42.48	50.05	+3	+4	39.78	57.50	−3	+2
7	40.34	33.59	+3	−8	42.74	41.60	+4	+3	42.43	50.34	+1	+6	39.66	57.68	−3	−1
8	40.46	33.79	+4	−6	42.77	41.89	+2	+5	42.37	50.63	−1	+5	39.55	57.85	−3	−4
9	40.58	34.00	+5	−3	42.80	42.20	0	+5	42.31	50.91	−2	+3	39.42	58.02	−2	−7
10	40.69	34.21	+5	+1	42.83	42.50	−1	+4	42.25	51.19	−3	0	39.30	58.18	0	−8
11	40.80	34.43	+3	+4	42.85	42.80	−3	+2	42.19	51.47	−3	−3	39.18	58.33	+1	−8
12	40.91	34.65	+2	+5	42.87	43.11	−3	−1	42.13	51.75	−2	−6	39.05	58.48	+2	−7
13	41.01	34.88	0	+5	42.89 / 42.90	43.41 / 43.72	−3 / −2	−4 / −6	42.06	52.02	−1	−7	38.93	58.63	+3	−4
14	41.12	35.11	−2	+3	42.91	44.03	−1	−8	41.99	52.29	0	−8	38.80	58.77	+4	−1
15	41.22	35.34	−3	+1	42.92	44.33	+1	−8	41.92	52.55	+2	−8	38.67	58.90	+3	+2
16	41.31	35.58	−3	−2	42.92	44.64	+2	−7	41.84	52.82	+3	−6	38.55	59.03	+2	+5
17	41.41	35.82	−3	−5	42.92	44.95	+3	−5	41.77	53.08	+4	−3	38.42	59.15	+1	+7
18	41.50	36.07	−2	−6	42.92	45.25	+4	−2	41.69	53.34	+4	0	38.28	59.27	−1	+9
19	41.59	36.32	0	−7	42.92	45.56	+3	+1	41.60	53.60	+3	+3	38.15	59.38	−2	+9
20	41.68	36.57	+1	−7	42.91	45.87	+3	+4	41.52	53.85	+2	+6	38.02	59.49	−4	+7
21	41.76	36.82	+2	−6	42.90	46.17	+1	+7	41.43	54.10	0	+8	37.89	59.59	−5	+4
22	41.84	37.08	+3	−3	42.88	46.48	0	+9	41.34	54.35	−1	+9	37.75	59.69	−5	0
23	41.92	37.34	+3	0	42.86	46.79	−2	+9	41.25	54.59	−3	+8	37.62	59.78	−3	−3
24	41.99	37.61	+3	+3	42.84	47.09	−4	+8	41.16	54.82	−5	+6	37.48	59.86	−1	−6
25	42.06	37.88	+2	+6	42.82	47.39	−5	+5	41.06	55.06	−5	+3	37.35	59.94	+1	−7
26	42.13	38.15	+1	+8	42.79	47.69	−5	+2	40.96	55.29	−4	−1	37.21	60.02	+3	−6
27	42.20	38.43	−1	+10	42.77	47.99	−4	−2	40.86	55.51	−3	−4	37.08	60.08	+4	−4
28	42.26	38.70	−3	+9	42.73	48.29	−2	−5	40.76	55.73	−1	−6	36.94	60.15	+4	−1
29	42.33	38.98	−5	+7	42.70	48.59	0	−7	40.66	55.94	+1	−7	36.81	60.20	+4	+3
30	42.38	39.26	−5	+4					40.56	56.15	+3	−5	36.67	60.25	+2	+5
31	42.44	39.55	−5	0					40.45	56.36	+4	−2	36.53	60.30	0	+6
32	42.49	39.84	−3	−4					40.34	56.56	+4	+1				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
$+81° 35' 30''$	6.839	+6.765	$+81° 35' 50''$	6.843	+6.770	$+81° 36' 0''$	6.845	+6.772
40	6.841	+6.767	60	6.845	+6.772	10	6.848	+6.774

$\alpha_{1939.0} = 9^h\ 28^m\ 33^s\!.14$ $\qquad \delta_{1939.0} = +81°\ 35'\ 54''\!.83$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Ne) 1 Hev. Draconis $4^m.58$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$9^h 28^m$	+ $81° 35'$	in $0^s.01$	in $0''.01$	$9^h 28^m$	+ $81° 35'$	in $0^s.01$	in $0''.01$	$9^h 28^m$	+ $81° 35'$	in $0^s.01$	in $0''.01$	$9^h 28^m$	+ $81° 35'$	in $0^s.01$	in $0''.01$
1	$36^s.53$	$60''.30$	0	+6	$32^s.49$	$58''.88$	−3	−1	$29^s.64$	$52''.93$	−1	−7	$28^s.54$	$43''.58$	+3	−3
2	36.40	60.34	−1	+5	32.38	58.75	−3	−4	29.57	52.67	+1	−8	28.54	43.25	+4	0
3	36.26	60.37	−3	+3	32.26	58.62	−2	−7	29.51	52.41	+2	−7	28.54	42.91	+3	+3
4	36.12	60.40	−3	0	32.15	58.48	0	−8	29.44	52.14	+3	−5	28.54	42.58	+2	+6
5	35.99	60.42	−3	−3	32.03	58.33	+1	−7	29.38	51.87	+4	−2	28.54	42.24	0	+8
6	35.85	60.43	−2	−6	31.92	58.18	+2	−6	29.32	51.59	+3	+1	28.55	41.91	−1	+9
7	35.71	60.44	−1	−7	31.81	58.02	+3	−4	29.26	51.32	+3	+4	28.56	41.57	−3	+9
8	35.58	60.45	0	−8	31.70	57.86	+4	−1	29.20	51.03	+1	+7	28.57	41.23	−5	+7
9	35.44	60.45	+2	−7	31.59	57.69	+3	+3	29.15	50.75	0	+9	28.59	40.89	−5	+4
10	35.31	60.44	+3	−5	31.48	57.52	+2	+6	29.10	50.46	−2	+9	28.60	40.55	−5	0
11	35.18	60.43	+4	−3	31.38	57.34	+1	+8	29.05	50.18	−4	+8	28.63	40.21	−3	−3
12	35.04	60.41	+4	+1	31.27	57.16	−1	+9	29.01	49.88	−5	+5	28.65	39.87	−1	−6
13	34.91	60.39	+3	+4	31.17	56.97	−3	+9	28.96	49.59	−5	+2	28.67	39.52	+1	−6
14	34.77	60.36	+2	+7	31.07	56.78	−4	+7	28.92	49.29	−4	−2	*)28.70	39.18	+3	−5
15	34.64	60.32	0	+8	30.97	56.59	−5	+4	28.88	48.99	−2	−5	28.73	38.84	+4	−3
16	34.51	60.28	−2	+9	30.88	56.39	−5	0	28.84	48.69	0	−7	28.76	38.50	+5	0
17	34.38	60.24	−4	+8	30.78	56.19	−3	−4	28.81	48.39	+2	−7	28.79	38.15	+4	+3
18	34.24	60.18	−5	+5	30.69	55.98	−1	−6	28.77	48.08	+4	−5	28.82	37.81	+2	+5
19	34.11	60.12	−5	+2	30.60	55.77	+1	−7	28.74	47.77	+5	−2	28.86	37.47	0	+6
20	33.98	60.06	−4	−2	30.51	55.55	+3	−6	28.71	47.46	+4	+1	28.90	37.12	−2	+5
21	33.85	59.99	−2	−5	30.42	55.33	+5	−4	28.69	47.15	+3	+4	28.94	36.78	−3	+2
22	33.72	59.91	0	−7	30.33	55.11	+5	0	28.66	46.83	+1	+6	28.99	36.43	−3	−2
23	33.59	59.83	+2	−7	30.25	54.88	+4	+3	28.64	46.51	−1	+5	29.03	36.09	−3	−5
24	33.47	59.75	+4	−5	30.17	54.65	+2	+5	28.62	46.19	−2	+3	29.08	35.75	−1	−7
25	33.34	59.66	+5	−2	30.09	54.41	0	+6	28.60	45.87	−3	0	29.13	35.41	0	−8
26	33.22	59.56	+4	+1	30.01	54.17	−1	+5	28.59	45.55	−3	−3	29.18	35.06	+2	−8
27	33.09	59.46	+3	+4	29.93	53.93	−3	+3	28.57	45.23	−2	−5	29.23	34.72	+3	−7
28	32.97	59.36	+1	+6	29.85	53.69	−3	0	28.56	44.90	−1	−7	29.29	34.38	+4	−4
39	32.85	59.25	−1	+6	29.78	53.44	−3	−3	28.55	44.57	0	−8	29.35	34.04	+4	−1
30	32.73	59.13	−2	+4	29.71	53.19	−2	−6	28.54	44.24	+2	−7	29.41	33.70	+3	+1
31	32.61	59.01	−3	+2	29.64	52.93	−1	−7	28.54	43.91	+3	−6	29.47	33.36	+2	+4
32	32.49	58.88	−3	−1					28.54	43.58	+3	−3	29.54	33.02	+1	+7

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+81° 35′ 30″	6.839	+6.765	+81° 35′ 50″	6.843	+6.770	+81° 36′ 0″	6.845	+6.772
40	6.841	+6.767	60	6.845	+6.772	10	6.848	+6.774

$\alpha_{1939.0} = 9^h\ 28^m\ 33^s.14$ $\delta_{1939.0} = +81°\ 35'\ 54''.83$

*) Tag der doppelten unteren Kulmination: Aug. 14.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Ne) 1 Hev. Draconis $4^m.58$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$9^h 28^m$	+ $81° 35'$	in $0^s.01$	in $0''.01$	$9^h 28^m$	+ $81° 35'$	in $0^s.01$	in $0''.01$	$9^h 28^m$	+ $81° 35'$	in $0^s.01$	in $0''.01$	$9^h 28^m$	+ $81° 35'$	in $0^s.01$	in $0''.01$
1	$29^s.54$	$33''.02$	+1	+7	$32^s.39$	$23''.60$	−3	+7	$36^s.87$	$16''.62$	−3	−3	$41^s.93$	$14''.16$	+2	−6
2	29.61	32.68	−1	+8	32.52	23.32	−4	+5	37.03	16.46	−2	−5	42.10	14.17	+3	−4
3	29.68	32.34	−2	+9	32.64	23.05	−5	+3	37.19	16.31	0	−6	42.27	14.18	+4	−1
4	29.75	32.01	−4	+7	32.77	22.77	−4	−1	37.36	16.16	+2	−5	42.43	14.19	+4	+2
5	29.82	31.68	−5	+5	32.90	22.50	−3	−4	37.52	16.02	+4	−3	42.60	14.21	+3	+5
6	29.89	31.34	−5	+2	33.03	22.23	−1	−5	37.69	15.88	+4	0	42.77	14.24	+1	+6
7	29.97	31.01	−4	−2	33.16	21.97	+1	−6	37.86	15.75	+3	+3	42.94	14.27	−1	+6
8	30.05	30.68	−2	−5	33.29	21.71	+3	−4	38.02	15.62	+2	+5	43.10	14.31	−3	+4
9	30.13	30.35	0	−6	33.43	21.45	+4	−2	38.19	15.50	0	+6	43.26	14.36	−3	+2
10	30.21	30.02	+2	−5	33.57	21.20	+4	+2	38.36	15.38	−2	+6	43.43	14.41	−3	−2
11	30.30	29.70	+4	−4	33.70	20.95	+3	+5	38.53	15.27	−3	+3	43.59	14.46	−3	−5
12	30.39	29.37	+4	−1	33.84	20.71	+1	+6	38.69	15.16	−4	0	43.75	14.52	−1	−7
13	30.48	29.05	+4	+3	33.98	20.46	−1	+6	38.86	15.06	−3	−3	43.91	14.59	0	−8
14	30.57	28.73	+3	+5	34.12	20.23	−2	+5	39.03	14.97	−2	−6	44.07	14.66	+2	−8
15	30.66	28.41	+1	+6	34.26	19.99	−3	+2	39.20	14.88	−1	−8	44.22	14.74	+3	−6
16	30.75	28.09	−1	+5	34.41	19.76	−3	−2	39.37	14.79	+1	−8	44.38	14.83	+4	−4
17	30.85	27.78	−3	+3	34.55	19.53	−3	−5	39.54	14.71	+3	−8	44.53	14.92	+4	0
18	30.95	27.47	−3	0	34.70	19.31	−1	−8	39.71	14.63	+4	−5	44.69	15.02	+3	+3
19	31.05	27.16	−3	−3	34.85	19.09	0	−9	39.88	14.56	+4	−3	44.84	15.12	+2	+6
20	31.15	26.85	−2	−6	34.99	18.87	+2	−8	40.05	14.50	+4	+1	44.99	15.23	0	+8
21	31.26	26.54	−1	−8	35.14	18.66	+3	−7	40.22	14.44	+3	+4	45.14	15.34	−1	+8
22	31.36	26.24	+1	−9	35.30	18.45	+4	−4	40.39	14.38	+1	+6	45.29	15.46	−3	+8
23	31.47	25.93	+3	−8	35.45	18.25	+4	−1	40.56	14.34	0	+8	45.44	15.58	−4	+6
24	31.58	25.63	+3	−6	35.60	18.05	+3	+2	40.74	14.29	−2	+8	45.59	15.71	−5	+3
25	31.69	25.33	+4	−3	35.76	17.86	+2	+5	40.91	14.26	−4	+7	45.73	15.84	−4	0
26	31.80	25.04	+4	0	35.91	17.67	+1	+7	41.08	14.23	−4	+4	45.88	15.98	−3	−4
27	31.92	24.74	+3	+3	36.07	17.48	−1	+8	41.25	14.20	−5	+1	46.02	16.13	−1	−6
28	32.04	24.45	+2	+6	36.23	17.30	−3	+8	41.42	14.18	−4	−2	46.16	16.28	+1	−6
29	32.15	24.16	0	+8	36.39	17.12	−4	+6	41.59	14.17	−2	−5	46.30	16.43	+3	−5
30	32.27	23.88	−2	+8	36.54	16.95	−5	+3	41.76	14.16	0	−6	46.43	16.59	+4	−3
31	32.39	23.60	−3	+7	36.70	16.78	−4	0	41.93	14.16	+2	−6	46.57	16.76	+4	0
32					36.87	16.62	−3	−3					46.70	16.93	+3	+3

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+81° 35′ 10″	6.834	+6.761	+81° 35′ 20″	6.836	+6.763	+81° 35′ 30″	6.839	+6.765
20	6.836	+6.763	30	6.839	+6.765	40	6.841	+6.767

$\alpha_{1939.0} = 9^h\ 28^m\ 33^s.14$ $\delta_{1939.0} = +81°\ 35'\ 54''.83$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nf) 30 Hev. Camelopardalis $5^{m}.34$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$10^{h}23^{m}$	+82° 51′	in $0^{s}.01$	$0''.01$	$10^{h}23^{m}$	+82° 51′	in $0^{s}.01$	$0''.01$	$10^{h}23^{m}$	+82° 52′	in $0^{s}.01$	$0''.01$	$10^{h}23^{m}$	+82° 52′	in $0^{s}.01$	$0''.01$
1	$53^{s}.56$	$49''.10$	−3	+10	$57^{s}.85$	$55''.02$	−4	−2	$59^{s}.23$	$3''.58$	−1	−6	$57^{s}.55$	$12''.68$	+5	−1
2	53.73	49.21	−5	+8	57.95	55.28	−2	−5	59.22	3.89	+2	−7	57.45	12.93	+4	+2
3	53.90	49.33	−6	+4	58.04	55.55	+1	−7	59.22	4.20	+4	−6	57.34	13.18	+2	+5
4	54.07	49.45	−5	0	58.13	55.82	+3	−7	59.20	4.52	+5	−3	57.23	13.43	0	+6
5	54.24	49.58	−3	−4	58.21	56.09	+5	−5	59.19	4.83	+5	0	57.12	13.67	−2	+5
6	54.40	49.72	−1	−7	58.30	56.37	+6	−2	59.17	5.14	+4	+3	57.01	13.91	−3	+3
7	54.57	49.86	+2	−8	58.37	56.64	+5	+1	59.15	5.45	+2	+5	56.90	14.14	−4	0
8	54.73	50.00	+4	−7	58.45	56.92	+3	+3	59.12	5.76	0	+5	56.79	14.37	−4	−3
9	54.89	50.16	+6	−5	58.52	57.20	+1	+5	59.09	6.07	−2	+4	56.67	14.59	−3	−5
10	55.04	50.32	+5	−1	58.59	57.49	−1	+5	59.06	6.38	−3	+2	56.55	14.81	−1	−7
11	55.20	50.48	+4	+2	58.66	57.78	−3	+3	59.02	6.69	−4	−1	56.43	15.02	0	−7
12	55.35	50.65	+2	+4	58.72	58.07	−4	0	58.98	7.00	−3	−4	56.30	15.23	+2	−7
13	55.50	50.82	0	+5	58.78	58.36	−4	−3	58.94	7.30	−2	−6	56.18	15.44	+3	−5
14	55.65	51.00	−2	+4	58.83	58.66	−3	−5	58.90	7.61	−1	−8	56.05	15.64	+4	−3
15	55.80	51.18	−3	+2	58.88	58.96	−2	−7	58.85	7.91	+1	−8	55.92	15.84	+4	0
16	55.94	51.37	−4	0	58.93	59.26	0	−7	58.80	8.21	+2	−6	55.79	16.03	+4	+3
17	56.08	51.56	−4	−3	58.98	59.56	+1	−7	58.74	8.51	+3	−4	55.65	16.22	+2	+6
18	56.22	51.76	−3	−5	59.02	59.86	+3	−5	58.69	8.80	+4	−2	55.52	16.40	0	+8
19	56.35	51.97	−1	−7	59.06	60.16	+4	−3	58.62	9.10	+4	+1	55.38	16.58	−2	+9
20	56.48	52.18	0	−7	59.09	60.47	+4	0	58.56	9.39	+3	+4	55.24	16.76	−3	+8
21	56.61	52.39	+2	−6	59.12	60.78	+4	+3	58.49	9.68	+1	+7	55.10	16.93	−5	+5
22	56.74	52.61	+3	−4	59.15	61.09	+3	+6	58.42	9.97	−1	+9	54.96	17.09	−5	+2
23	56.86	52.83	+4	−2	59.17	61.40	+1	+8	58.34	10.25	−3	+9	54.81	17.25	−4	−2
24	56.98	53.06	+4	+1	59.19	61.71	−1	+9	58.27	10.53	−4	+7	54.67	17.41	−2	−5
25	57.10	53.29	+3	+4	59.20	62.02	−3	+9	58.19	10.81	−5	+5	54.52	17.55	0	−6
26	57.21	53.52	+2	+7	59.22	62.33	−5	+7	58.10	11.08	−5	+1	54.38	17.70	+2	−7
27	57.33	53.76	0	+9	{59.22 59.23	62.64 62.96	−5 −5	+4} 0}	58.02	11.36	−4	−2	54.23	17.84	+4	−5
28	57.44	54.00	−2	+10	59.23	63.27	−3	−4	57.93	11.63	−2	−5	54.08	17.97	+5	−2
29	57.54	54.25	−4	+9	59.23	63.58	−1	−6	57.84	11.89	+1	−7	53.93	18.10	+5	+1
30	57.65	54.50	−5	+6					57.75	12.16	+3	−6	53.78	18.22	+3	+4
31	57.75	54.76	−5	+2					57.65	12.42	+5	−4	53.63	18.34	+1	+5
32	57.85	55.02	−4	−2					57.55	12.68	+5	−1				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 51′ 40″	8.047	+7.984	+82° 52′ 0″	8.053	+7.991	+82° 52′ 10″	8.056	+7.994
50	8.050	+7.987	10	8.056	+7.994	20	8.059	+7.997

$\alpha_{1939.0} = 10^{h}\,23^{m}\,49^{s}.13$ $\delta_{1939.0} = +82°\,52'\,13''.78$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

N f) 30 Hev. Camelopardalis $5^m.34$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
		+	in			+	in			+	in			+	in	
	10^h23^m	82° 52′	$0^s.01$	0″.01	10^h23^m	82° 52′	$0^s.01$	0″.01	10^h23^m	82° 52′	$0^s.01$	0″.01	10^h23^m	82° 51′	$0^s.01$	0″.01
1	53.63	18.34	+1	+5	48.71	19.14	−4	0	44.56	14.90	−2	−6	41.98	66.44	+3	−4
2	53.48	18.45	−1	+6	48.55	19.08	−4	−3	44.45	14.68	0	−8	41.94	66.12	+4	−2
3	53.32	18.56	−3	+4	48.40	19.01	−3	−5	44.34	14.46	+2	−7	41.89	65.80	+4	+1
4	53.17	18.66	−4	+2	48.25	18.93	−1	−7	44.23	14.24	+3	−5	41.85	65.47	+3	+5
5	53.01	18.75	−4	−1	48.09	18.85	0	−7	44.12	14.01	+4	−3	41.81	65.14	+1	+7
6	52.86	18.84	−3	−4	47.94	18.76	+2	−7	44.01	13.78	+4	0	41.77	64.82	−1	+9
7	52.70	18.93	−2	−6	47.80	18.67	+3	−5	43.90	13.54	+4	+3	41.74	64.48	−3	+9
8	52.54	19.00	−1	−8	47.65	18.57	+4	−2	43.80	13.30	+2	+6	41.71	64.15	−4	+8
9	52.38	19.07	+1	−7	47.50	18.47	+4	+1	43.70	13.05	+1	+8	41.68	63.81	−5	+5
10	52.22	19.14	+3	−6	47.35	18.36	+3	+4	43.60	12.80	−2	+10	41.65	63.48	−5	+2
11	52.06	19.20	+4	−4	47.21	18.24	+2	+7	43.51	12.55	−3	+9	41.62	63.14	−4	−2
12	51.90	19.26	+4	−1	47.06	18.12	0	+9	43.41	12.29	−5	+7	41.60	62.80	−2	−5
13	51.74	19.31	+4	+2	46.92	18.00	−2	+9	43.32	12.03	−5	+4	41.58	62.45	0	−6
14	51.58	19.35	+3	+5	46.78	17.87	−4	+8	43.23	11.76	−5	0	41.56	62.11	+3	−6
15	51.42	19.39	+1	+8	46.63	17.73	−5	+5	43.14	11.50	−3	−4	41.55	61.76	+5	−4
16	51.26	19.42	−1	+9	46.49	17.59	−5	+2	43.06	11.22	−1	−6	41.54	61.41	+5	−2
17	51.10	19.45	−3	+9	46.36	17.45	−4	−2	42.97	10.95	+2	−7	41.53	61.06	+5	+2
18	50.93	19.47	−4	+7	46.22	17.30	−2	−6	42.89	10.67	+4	−6	41.52	60.71	+3	+4
19	50.77	19.48	−5	+4	46.08	17.14	0	−7	42.81	10.39	+5	−4	41.51	60.36	+1	+5
20	50.61	19.49	−5	0	45.94	16.98	+3	−7	42.73	10.10	+5	−1	41.51	60.00	−1	+5
21	50.45	19.49	−3	−4	45.81	16.82	+5	−5	42.66	9.81	+4	+2	41.51	59.65	−3	+3
22	50.29	19.49	−1	−6	45.68	16.65	+5	−2	42.59	9.52	+2	+5	41.52	59.30	−4	0
23	50.13	19.48	+2	−7	45.55	16.47	+5	+1	42.52	9.23	0	+5	41.52	58.94	−4	−3
24	49.97	19.47	+4	−6	45.42	16.29	+3	+4	42.45	8.93	−2	+4	41.53	58.58	−3	−6
25	49.81	19.45	+5	−4	45.29	16.11	+1	+5	42.39	8.63	−3	+2	41.54	58.22	−1	−7
26	49.65	19.42	+5	−1	45.16	15.92	−1	+5	42.32	8.33	−4	−1	41.55	57.86	+1	−8
27	49.49	19.39	+4	+2	45.04	15.72	−3	+3	42.26	8.02	−3	−4	41.57	57.50	+2	−7
28	49.34	19.35	+2	+5	44.92	15.52	−4	+1	42.20	7.71	−2	−6	*)41.59	57.14	+3	−5
29	49.18	19.31	0	+6	44.80	15.32	−4	−2	42.14	7.40	−1	−7	41.61	56.78	+4	−3
30	49.02	19.26	−2	+5	44.68	15.11	−3	−5	42.08	7.08	+1	−7	41.63	56.42	+4	0
31	48.86	19.20	−3	+3	44.56	14.90	−2	−6	42.03	6.77	+2	−6	41.66	56.06	+3	+3
32	48.71	19.14	−4	0					41.98	6.44	+3	−4	41.69	55.70	+2	+6

δ		sec δ	tg δ	δ		sec δ	tg δ	δ		sec δ	tg δ
+82° 51′	50″	8.050	+7.987	+82° 52′	0″	8.053	+7.991	+82° 52′	10″	8.056	+7.994
	60	8.053	+7.991		10	8.056	+7.994		20	8.059	+7.997

$\alpha_{1939.0} = 10^h\ 23^m\ 49^s.13$ $\delta_{1939.0} = +82°\ 52'\ 13''.78$

*) Tag der doppelten unteren Kulmination: Aug. 28.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nf) 30 Hev. Camelopardalis $5^{m}.34$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$10^{h}23^{m}$	$+82°51'$	in $0^{s}.01$	in $0''.01$	$10^{h}23^{m}$	$+82°51'$	in $0^{s}.01$	in $0''.01$	$10^{h}23^{m}$	$+82°51'$	in $0^{s}.01$	in $0''.01$	$10^{h}23^{m}$	$+82°51'$	in $0^{s}.01$	in $0''.01$
1	41.69	55.70	+2	+6	43.71	45.11	−3	+8	47.94	36.13	−4	−1	53.43	31.30	+1	−6
2	41.72	55.34	0	+8	43.82	44.78	−4	+7	48.11	35.89	−2	−4	53.62	31.23	+3	−5
3	41.76	54.98	−2	+9	43.92	44.45	−5	+4	48.27	35.67	0	−6	53.81	31.16	+4	−3
4	41.79	54.62	−3	+9	44.03	44.12	−5	+1	48.44	35.44	+2	−6	54.01	31.09	+5	0
5	41.83	54.25	−5	+7	44.14	43.80	−4	−2	48.61	35.22	+4	−5	54.20	31.03	+4	+3
6	41.87	53.89	−5	+4	44.26	43.47	−2	−5	48.78	35.01	+5	−2	54.40	30.98	+2	+5
7	41.92	53.53	−5	0	44.37	43.15	0	−6	48.95	34.80	+4	+2	54.60	30.94	0	+6
8	41.96	53.17	−3	−3	44.49	42.83	+3	−5	49.13	34.59	+3	+4	54.79	30.90	−2	+5
9	42.01	52.81	−1	−5	44.61	42.52	+4	−3	49.31	34.39	+1	+6	54.99	30.86	−3	+3
10	42.06	52.45	+2	−6	44.73	42.20	+5	0	49.48	34.20	−1	+6	55.18	30.84	−4	0
11	42.12	52.09	+4	−5	44.86	41.89	+4	+3	49.66	34.01	−3	+5	55.37	30.82	−4	−3
12	42.17	51.74	+5	−2	44.99	41.59	+2	+5	49.84	33.82	−4	+2	55.57	30.80	−2	−6
13	42.23	51.38	+5	+1	45.12	41.28	0	+6	50.02	33.64	−4	−2	55.76	30.79	−1	−8
14	42.29	51.02	+3	+4	45.25	40.98	−2	+5	50.20	33.47	−3	−5	55.95	30.79	+1	−8
15	42.35	50.66	+2	+5	45.38	40.68	−3	+3	50.39	33.30	−2	−7	56.15	30.79	+3	−7
16	42.42	50.31	−1	+5	45.51	40.38	−4	0	50.57	33.13	0	−8	56.34	30.80	+4	−5
17	42.49	49.95	−2	+4	45.65	40.09	−4	−3	50.76	32.97	+2	−8	56.53	30.82	+4	−2
18	42.56	49.60	−4	+2	45.79	39.80	−2	−6	50.95	32.82	+3	−6	56.72	30.84	+4	+1
19	42.63	49.24	−4	−2	45.93	39.51	−1	−8	51.13	32.67	+4	−4	56.92	30.87	+3	+4
20	42.71	48.89	−3	−5	46.07	39.23	+1	−9	51.32	32.52	+4	−1	57.11	30.90	+1	+7
21	42.79	48.54	−2	−7	46.22	38.95	+3	−8	51.51	32.39	+4	+2	57.29	30.94	−1	+8
22	42.87	48.19	0	−8	46.37	38.68	+4	−6	51.70	32.25	+2	+5	57.48	30.99	−3	+9
23	42.95	47.84	+2	−8	46.52	38.40	+4	−3	51.89	32.12	+1	+7	57.67	31.04	−4	+7
24	43.04	47.50	+3	−6	46.67	38.14	+4	0	52.08	32.00	−1	+8	57.85	31.10	−5	+5
25	43.12	47.15	+4	−4	46.82	37.87	+3	+3	52.27	31.88	−3	+8	58.04	31.16	−5	+1
26	43.22	46.80	+4	−1	46.97	37.61	+2	+6	52.46	31.77	−4	+6	58.22	31.23	−4	−2
27	43.31	46.46	+4	+2	47.13	37.35	0	+8	52.65	31.66	−5	+3	58.40	31.31	−2	−5
28	43.41	46.12	+3	+5	47.29	37.10	−2	+8	52.85	31.56	−5	0	58.59	31.39	0	−7
29	43.51	45.78	+1	+7	47.45	36.85	−4	+7	53.04	31.47	−3	−3	58.76	31.48	+3	−6
30	43.61	45.45	−1	+8	47.61	36.60	−5	+5	53.23	31.38	−1	−6	58.94	31.58	+4	−5
31	43.71	45.11	−3	+8	47.78	36.36	−5	+2	53.43	31.30	+1	−6	59.12	31.68	+5	−2
32					47.94	36.13	−4	−1					59.29	31.78	+4	+2

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 51′ 30″	8.044	+7.981	+82° 51′ 40″	8.047	+7.984	+82° 51′ 50″	8.050	+7.987
40	8.047	+7.984	50	8.050	+7.987	60	8.053	+7.991

$\alpha_{1939.0} = 10^{h}\ 23^{m}\ 49^{s}.13$ $\delta_{1939.0} = +82°\ 52'\ 13''.78$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Ng) ε Ursae minoris $4^{m}.40$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder in		Februar AR.	Februar Dekl.	Februar ☾ Glieder in		März AR.	März Dekl.	März ☾ Glieder in		April AR.	April Dekl.	April ☾ Glieder in	
	$16^{h}51^{m}$	+82° 8′	$0^{s}.01$	$0''.01$	$16^{h}52^{m}$	+82° 8′	$0^{s}.01$	$0''.01$	$16^{h}52^{m}$	+82° 8′	$0^{s}.01$	$0''.01$	$16^{h}52^{m}$	+82° 8′	$0^{s}.01$	$0''.01$
1	$57^{s}.32$	$22''.68$	+3	+3	$0^{s}.33$	$14''.04$	−1	+8	$4^{s}.57$	$10''.54$	−2	+6	$9^{s}.40$	$12''.60$	−1	−7
2	57.38	22.35	+2	+6	0.46	13.83	−2	+5	4.73	10.51	−2	+3	9.54	12.77	0	−8
3	57.44	22.02	+1	+8	0.60	13.63	−3	+1	4.89	10.48	−2	−1	9.68	12.94	+1	−8
4	57.50	21.69	0	+8	0.74	13.43	−2	−3	5.06	10.47	−2	−5	9.82	13.11	+2	−5
5	57.57	21.37	−2	+7	0.88	13.24	−2	−7	5.22	10.45	−1	−8	9.95	13.29	+2	−2
6	57.64	21.05	−3	+3	1.02	13.06	−1	−9	5.38	10.45	0	−8	10.08	13.48	+2	+2
7	57.71	20.73	−3	−1	1.16	12.88	0	−8	5.54	10.45	+1	−7	10.21	13.67	+1	+5
8	57.78	20.42	−2	−5	1.30	12.71	+1	−6	5.71	10.46	+2	−4	10.34	13.86	0	+7
9	57.86	20.11	−1	−8	1.45	12.54	+2	−3	5.87	10.47	+2	−1	10.47	14.06	−1	+8
10	57.94	19.80	0	−9	1.60	12.38	+2	+1	6.03	10.50	+1	+3	10.60	14.27	−2	+6
11	58.02	19.49	+1	−7	1.75	12.22	+1	+4	6.19	10.52	0	+6	10.72	14.48	−3	+4
12	58.10	19.19	+2	−5	1.90	12.07	0	+7	6.35	10.56	−1	+7	10.84	14.70	−3	+2
13	58.19	18.89	+2	−1	2.05	11.93	−1	+7	6.51	10.60	−2	+7	10.96	14.92	−2	−1
14	58.28	18.59	+1	+3	2.20	11.80	−2	+6	6.67	10.65	−2	+6	11.08	15.14	−1	−4
15	58.38	18.30	0	+5	2.35	11.67	−2	+5	6.84	10.70	−3	+3	11.19	15.37	−1	−6
16	58.47	18.02	0	+7	2.50	11.54	−3	+2	7.00	10.76	−3	0	11.31	15.60	0	−7
17	58.57	17.73	−1	+7	2.66	11.43	−2	−1	7.15	10.83	−2	−3	11.42	15.84	+1	−7
18	58.67	17.46	−2	+6	2.82	11.32	−2	−3	7.31	10.91	−1	−5	11.53	16.09	+2	−5
19	58.77	17.18	−2	+4	2.97	11.22	−1	−6	7.47	10.99	0	−7	11.64	16.33	+3	−3
20	58.88	16.91	−2	+1	3.13	11.12	0	−7	7.62	11.07	+1	−7	11.75	16.58	+3	+1
21	58.99	16.65	−2	−1	3.29	11.03	+1	−7	7.78	11.17	+2	−6	11.85	16.84	+3	+4
22	59.10	16.39	−1	−4	3.45	10.94	+2	−6	7.93	11.27	+3	−4	11.95	17.10	+2	+6
23	59.22	16.13	0	−6	3.61	10.87	+3	−3	8.08	11.38	+3	−1	12.05	17.36	0	+8
24	59.33	15.88	+1	−7	3.77	10.80	+3	0	8.23	11.49	+3	+2	12.15	17.63	−1	+7
25	59.45	15.63	+2	−7	3.93	10.73	+3	+3	8.38	11.61	+2	+5	12.24	17.89	−2	+5
26	59.57	15.39	+3	−5	4.09	10.67	+2	+6	8.53	11.73	+1	+7	12.33	18.17	−2	+2
27	59.69	15.15	+3	−2	4.25	10.62	+1	+8	8.68	11.86	0	+8	12.42	18.44	−2	−2
28	59.82	14.92	+3	+1	4.41	10.58	0	+8	8.83	12.00	−1	+7	12.51	18.72	−2	−6
29	59.94	14.69	+3	+5	4.57	10.54	−2	+6	8.97	12.14	−2	+4	12.59	19.00	0	−8
30	60.07	14.47	+2	+7					9.11	12.29	−2	0	12.67	19.29	+1	−8
31	60.20	14.25	0	+9					9.26	12.44	−2	−4	12.75	19.58	+1	−6
32	60.33	14.04	−1	+8					9.40	12.60	−1	−7				

δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 8′ 10″	7.309	+7.240	+82° 8′ 20″	7.311	+7.243
20	7.311	+7.243	30	7.314	+7.245

$\alpha_{1939.0} = 16^{h}\ 52^{m}\ 8^{s}.82$ $\delta_{1939.0} = +82°\ 8'\ 26''.56$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Ng) ε Ursae minoris $4^m.40$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	16^h52^m	+82° 8′	in $0^s.01$	in $0''.01$	16^h52^m	+82° 8′	in $0^s.01$	in $0''.01$	16^h52^m	+82° 8′	in $0^s.01$	in $0''.01$	16^h52^m	+82° 8′	in $0^s.01$	in $0''.01$
1	$12^s.75$	$19''.58$	+1	−6	$13^s.85$	$29''.44$	+1	+5	$12^s.31$	$39''.01$	−2	+5	$8^s.57$	$45''.82$	−1	−5
2	12.83	19.87	+2	−3	13.84	29.77	0	+7	12.22	39.28	−3	+2	8.42	45.97	0	−6
3	12.90	20.17	+2	0	13.83	30.10	−1	+7	12.13	39.55	−2	−1	8.27	46.12	+1	−7
4	12.97	20.47	+1	+4	13.82	30.43	−2	+6	12.03	39.82	−2	−3	8.12	46.26	+2	−6
5	13.04	20.77	0	+6	13.80 13.78	30.75 31.08	−3 −3	+4 +1	11.94	40.08	−1	−5	7.96	46.40	+3	−4
6	13.10	21.07	−1	+7	13.76	31.40	−2	−2	11.84	40.34	0	−7	7.81	46.54	+3	−2
7	13.17	21.38	−2	+7	13.73	31.73	−1	−4	11.74	40.60	+1	−7	7.66	46.67	+3	+2
8	13.23	21.68	−2	+5	13.70	32.05	0	−6	11.63	40.85	+2	−6	7.50	46.80	+3	+5
9	13.28	21.99	−3	+3	13.67	32.37	+1	−7	11.53	41.10	+3	−3	7.34	46.92	+2	+8
10	13.34	22.30	−2	0	13.64	32.69	+2	−7	11.42	41.35	+3	0	7.18	47.04	0	+8
11	13.39	22.61	−2	−3	13.60	33.01	+3	−5	11.31	41.59	+3	+3	7.02	47.15	−1	+7
12	13.44	22.93	−1	−5	13.56	33.33	+3	−2	11.20	41.83	+2	+6	6.86	47.26	−2	+5
13	13.49	23.24	0	−7	13.52	33.65	+3	+1	11.08	42.07	+1	+8	6.69	47.36	−2	+1
14	13.53	23.56	+1	−7	13.47	33.96	+3	+5	10.97	42.30	0	+8	6.53	47.46	−2	−3
15	13.57	23.88	+2	−6	13.43	34.28	+2	+7	10.85	42.53	−1	+6	6.36	47.55	−1	−7
16	13.61	24.20	+3	−4	13.38	34.59	0	+8	10.73	42.75	−2	+3	6.20	47.64	0	−8
17	13.64	24.52	+3	−1	13.32	34.90	−1	+7	10.61	42.98	−2	−1	6.03	47.72	+1	−8
18	13.68	24.85	+3	+3	13.27	35.20	−2	+5	10.49	43.19	−2	−5	5.86	47.80	+1	−6
19	13.71	25.17	+2	+6	13.21	35.51	−2	+1	10.36	43.41	−1	−8	5.69	47.87	+2	−2
20	13.74	25.49	+1	+7	13.15	35.82	−2	−3	10.23	43.62	0	−8	5.52	47.94	+2	+2
21	13.76	25.82	0	+8	13.09	36.12	−1	−7	10.11	43.83	+1	−7	5.35	48.01	+1	+5
22	13.78	26.15	−1	+6	13.02	36.42	0	−8	9.97	44.03	+2	−4	5.18	48.07	0	+7
23	13.80	26.48	−2	+3	12.95	36.72	+1	−8	9.84	44.23	+2	−1	5.00	48.12	−1	+7
24	13.82	26.80	−2	−1	12.88	37.01	+1	−6	9.71	44.42	+1	+3	4.83	48.17	−2	+6
25	13.83	27.13	−2	−4	12.81	37.31	+2	−2	9.57	44.61	0	+6	4.66	48.21	−3	+4
26	13.84	27.46	−1	−7	12.73	37.60	+2	+1	9.43	44.80	−1	+7	4.49	48.25	−3	+1
27	13.85	27.79	0	−8	12.66	37.88	+1	+4	9.30	44.98	−2	+7	4.31	48.28	−2	−2
28	13.86	28.12	+1	−7	12.57	38.17	0	+7	9.15	45.16	−2	+5	4.14	48.31	−2	−4
29	13.86	28.45	+2	−4	12.49	38.45	−1	+7	9.01	45.33	−3	+3	3.97	48.33	−1	−6
30	13.86	28.78	+2	−1	12.40	38.73	−2	+7	8.86	45.50	−3	0	3.79	48.35	0	−7
31	13.86	29.11	+2	+2	12.31	39.01	−2	+5	8.72	45.66	−2	−2	3.62	48.37	+1	−7
32	13.85	29.44	+1	+5					8.57	45.82	−1	−5	3.44	48.38	+2	−5

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 8′ 10″	7.309	+7.240	+82° 8′ 30″	7.314	+7.245	+82° 8′ 40″	7.317	+7.248
20	7.311	+7.243	40	7.317	+7.248	50	7.319	+7.250

$\alpha_{1939.0} = 16^h\ 52^m\ 8^s.82$ $\delta_{1939.0} = +82°\ 8'\ 26''.56$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Ng) ε Ursae minoris $4^{\mathrm{m}}.40$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
	$16^{\mathrm{h}}51^{\mathrm{m}}$	+82° 8′	in $0^{\mathrm{s}}.01$	in $0''.01$	$16^{\mathrm{h}}51^{\mathrm{m}}$	+82° 8′	in $0^{\mathrm{s}}.01$	in $0''.01$	$16^{\mathrm{h}}51^{\mathrm{m}}$	+82° 8′	in $0^{\mathrm{s}}.01$	in $0''.01$	$16^{\mathrm{h}}51^{\mathrm{m}}$	+82° 8′	in $0^{\mathrm{s}}.01$	in $0''.01$
1	63.44	48.38	+2	−5	58.19	46.29	+3	+2	53.66	39.68	−1	+7	51.22	30.11	−2	−1
2	63.26	48.38	+3	−3	58.03	46.14	+2	+6	53.54	39.41	−2	+5	51.18	29.76	−2	−4
3	63.09	48.38	+3	0	57.86	45.99	+1	+7	53.43	39.12	−2	+2	51.14	29.41	−1	−7
4	62.91	48.37	+3	+4	57.70	45.83	0	+8	53.31	38.84	−2	−2	51.11	29.06	0	−8
5	62.73	48.36	+2	+6	57.53	45.67	−1	+7	53.20	38.55	−1	−5	*)51.08	28.70	+1	−7
6	62.56	48.34	+1	+8	57.37	45.51	−2	+4	53.09	38.26	0	−8	51.05	28.35	+2	−4
7	62.38	48.32	0	+8	57.21	45.34	−2	0	52.98	37.96	+1	−8	51.03	27.99	+2	−1
8	62.20	48.29	−1	+6	57.05	45.16	−2	−4	52.88	37.67	+2	−6	51.01	27.64	+2	+3
9	62.02	48.26	−2	+3	56.89	44.98	−1	−7	52.78	37.36	+2	−3	50.99	27.28	+1	+5
10	61.85	48.23	−2	−1	56.74	44.80	0	−8	52.68	37.06	+2	+1	50.98	26.93	0	+7
11	61.67	48.19	−1	−5	56.58	44.61	+1	−7	52.58	36.75	+1	+4	50.97	26.57	−1	+7
12	61.49	48.14	0	−8	56.43	44.42	+2	−5	52.49	36.44	0	+6	50.96	26.21	−2	+6
13	61.31	48.09	+1	−8	56.27	44.22	+2	−1	52.40	36.13	−1	+7	50.96	25.85	−3	+3
14	61.14	48.03	+1	−7	56.12	44.02	+2	+2	52.31	35.82	−2	+7	50.96	25.50	−3	0
15	60.96	47.97	+2	−4	55.97	43.81	+1	+5	52.22	35.50	−3	+5	50.96	25.14	−2	−3
16	60.79	47.90	+2	0	55.82	43.60	0	+7	52.14	35.18	−3	+2	50.96	24.78	−1	−5
17	60.61	47.83	+1	+4	55.67	43.39	−1	+7	52.06	34.86	−3	−1	50.97	24.42	0	−7
18	60.43	47.75	0	+6	55.52	43.17	−2	+6	51.98	34.53	−2	−4	50.98	24.07	+1	−7
19	60.26	47.67	−1	+7	55.38	42.95	−3	+3	51.90	34.20	−1	−6	51.00	23.71	+2	−6
20	60.08	47.58	−2	+7	55.23	42.72	−3	0	51.83	33.87	0	−7	51.02	23.36	+2	−4
21	59.91	47.49	−3	+5	55.09	42.49	−2	−3	51.76	33.54	+1	−7	51.04	23.01	+3	−1
22	59.74	47.39	−3	+2	54.95	42.26	−2	−5	51.69	33.20	+2	−5	51.06	22.65	+3	+2
23	59.56	47.29	−3	−1	54.81	42.02	−1	−6	51.63	32.87	+3	−3	51.09	22.30	+2	+5
24	59.39	47.18	−2	−3	54.68	41.78	0	−7	51.57	32.53	+3	0	51.11	21.96	+1	+7
25	59.22	47.07	−1	−5	54.54	41.53	+1	−6	51.51	32.19	+2	+3	51.15	21.61	0	+8
26	59.04	46.95	0	−7	54.41	41.28	+2	−5	51.45	31.85	+2	+6	51.18	21.26	−1	+7
27	58.87	46.83	+1	−7	54.28	41.02	+3	−2	51.40	31.50	+1	+7	51.22	20.92	−2	+4
28	58.70	46.70	+2	−6	54.15	40.76	+3	+1	51.35	31.16	0	+7	51.26	20.57	−2	+1
29	58.53	46.57	+3	−3	54.03	40.50	+2	+4	51.30	30.81	−1	+6	51.31	20.23	−2	−3
30	58.36	46.43	+3	−1	53.90	40.23	+1	+6	51.26	30.46	−2	+3	51.36	19.89	−1	−6
31	58.19	46.29	+3	+2	53.78	39.96	0	+8	51.22	30.11	−2	−1	51.41	19.56	0	−8
32					53.66	39.68	−1	+7					51.47	19.22	+1	−7

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 8′ 10″	7.309	+7.240	+82° 8′ 30″	7.314	+7.245	+82° 8′ 40″	7.317	+7.248
20	7.311	+7.243	40	7.317	+7.248	50	7.319	+7.250

$\alpha_{1939.0} = 16^{\mathrm{h}}\ 52^{\mathrm{m}}\ 8^{\mathrm{s}}.82$ $\delta_{1939.0} = +82°\ 8'\ 26''.56$

*) Tag der doppelten unteren Kulmination: Dez. 5.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nh) δ Ursae minoris $4^{m}.44$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		+	in			+	in			+	in			+	in	
	$17^h 51^m$	86° 36′	$0^s.01$	$0''.01$	$17^h 51^m$	86° 36′	$0^s.01$	$0''.01$	$17^h 51^m$	86° 36′	$0^s.01$	$0''.01$	$17^h 51^m$	86° 36′	$0^s.01$	$0''.01$
	s	"			s	"			s	"			s	"		
1	24.72	46.66	+10	0	28.72	37.14	0	+8	37.02	31.79	−2	+7	48.24	31.37	−6	−5
2	24.74	46.32	+9	+4	28.95	36.88	−4	+6	37.37	31.68	−6	+4	48.59	31.46	−3	−8
3	24.77	45.99	+6	+7	29.19	36.63	−7	+2	37.72	31.58	−7	0	48.95	31.55	0	−8
4	24.81	45.66	+2	+8	29.44	36.38	−8	−2	38.07	31.48	−7	−4	49.29	31.65	+3	−6
5	24.86	45.32	−2	+7	29.69	36.13	−7	−5	38.42	31.40	−5	−7	49.64	31.76	+5	−3
6	24.91	44.99	−6	+4	29.94	35.89	−5	−8	38.78	31.31	−2	−8	49.98	31.87	+5	+1
7	24.97	44.66	−8	0	30.20	35.65	−1	−8	39.14	31.24	+1	−7	50.32	31.98	+4	+4
8	25.04	44.33	−8	−3	30.47	35.42	+2	−6	39.50	31.17	+3	−5	50.66	32.11	+2	+7
9	25.12	44.00	−7	−7	30.74	35.19	+4	−4	39.86	31.10	+5	−2	51.00	32.23	−1	+8
10	25.20	43.68	−4	−8	31.01	34.97	+5	0	40.22	31.04	+5	+2	51.33	32.37	−3	+8
11	25.29	43.35	0	−8	31.29	34.75	+4	+4	40.58	30.99	+3	+5	51.66	32.51	−6	+6
12	25.39	43.03	+3	−5	31.58	34.54	+2	+7	40.95	30.94	+1	+7	51.99	32.66	−7	+3
13	25.49	42.70	+4	−2	31.86	34.34	0	+8	41.32	30.90	−2	+8	52.31	32.81	−7	0
14	25.60	42.39	+5	+2	32.16	34.14	−3	+8	41.68	30.87	−5	+7	52.63	32.97	−6	−3
15	25.72	42.07	+3	+5	32.46	33.94	−5	+6	42.05	30.84	−6	+5	52.95	33.13	−4	−5
16	25.84	41.76	+1	+7	32.76	33.75	−6	+4	42.41	30.82	−7	+2	53.26	33.30	−1	−7
17	25.97	41.45	−1	+8	33.06	33.57	−7	+1	42.78	30.81	−7	−1	53.57	33.47	+2	−8
18	26.11	41.14	−3	+7	33.38	33.39	−6	−2	43.15	30.80	−5	−4	53.87	33.65	+5	−7
19	26.25	40.83	−5	+5	33.69	33.21	−4	−5	43.52	30.80	−3	−6	54.18	33.83	+7	−5
20	26.40	40.53	−6	+3	34.01	33.04	−2	−7	43.88	30.81	0	−7	54.47	34.02	+9	−1
21	26.56	40.23	−6	0	34.33	32.88	+1	−8	44.25	30.82	+3	−7	54.77	34.21	+9	+2
22	26.73	39.93	−5	−3	34.66	32.72	+4	−7	44.62	30.84	+6	−6	55.06	34.41	+7	+5
23	26.90	39.64	−3	−6	34.99	32.57	+7	−5	44.99	30.87	+8	−3	55.34	34.61	+4	+7
24	27.08	39.34	0	−7	35.32	32.43	+9	−2	45.35	30.90	+9	0	55.62	34.82	0	+8
25	27.26	39.06	+3	−8	35.66	32.29	+10	+1	45.72	30.94	+8	+3	55.90	35.03	−3	+6
26	27.45	38.77	+6	−7	35.99	32.15	+8	+4	46.08	30.98	+6	+6	56.17	35.25	−6	+3
27	27.65	38.49	+9	−4	36.33	32.03	+6	+7	46.44	31.03	+3	+8	56.44	35.47	−7	−1
28	27.85	38.21	+10	−1	36.68	31.90	+2	+8	46.81	31.09	−1	+7	56.70	35.69	−7	−4
29	28.06	37.94	+10	+3	37.02	31.79	−2	+7	47.17	31.15	−4	+5	56.96	35.92	−4	−7
30	28.27	37.67	+7	+6					47.52	31.22	−6	+2	57.21	36.15	−1	−8
31	28.49	37.40	+4	+8					47.88	31.29	−7	−2	57.46	36.39	+2	−7
32	28.72	37.14	0	+8					48.24	31.37	−6	−5				

δ	sec δ	tg δ	δ	sec δ	tg δ
+86° 36′ 30″	16.903	+16.873	+86° 36′ 40″	16.917	+16.887
40	16.917	+16.887	50	16.931	+16.901

$\alpha_{1939.0} = 17^h\ 51^m\ 52^s.56$ $\delta_{1939.0} = +86°\ 36'\ 43''.90$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nh) δ Ursae minoris $4^m.44$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		+	in			+	in			+	in			+	in	
	$17^h 51^m$	86° 36′	$0^s.01$	$0''.01$	$17^h 52^m$	86° 36′	$0^s.01$	$0''.01$	$17^h 51^m$	86° 36′	$0^s.01$	$0''.01$	$17^h 51^m$	86° 37′	$0^s.01$	$0''.01$
	s	"			s	"			s	"			s	"		
1	57.46	36.39	+2	−7	2.34	45.30	+4	+5	61.15	55.28	−5	+6	54.25	3.78	−5	−4
2	57.70	36.63	+4	−4	2.40	45.62	+2	+7	61.01	55.59	−6	+4	53.94	4.00	−3	−6
3	57.94	36.88	+5	−1	2.45	45.94	−1	+8	60.86	55.90	−7	+1	53.63	4.22	0	−7
4	58.17	37.13	+5	+3	2.49	46.26	−3	+7	60.71	56.20	−6	−2	53.32	4.44	+3	−7
5	58.40	37.38	+3	+5	2.53	46.58	−6	+5	60.56	56.51	−4	−5	53.01	4.66	+6	−6
6	58.62	37.64	+1	+7	2.57	46.90	−7	+3	60.39	56.81	−2	−6	52.68	4.87	+8	−4
7	58.84	37.90	−2	+8	2.59	47.23	−7	0	60.23	57.11	+1	−7	52.36	5.08	+10	0
8	59.05	38.16	−5	+7	2.61	47.56	−5	−3	60.05	57.40	+5	−7	52.03	5.28	+9	+3
9	59.25	38.43	−6	+5	2.62	47.88	−3	−6	59.87	57.70	+7	−5	51.70	5.48	+7	+6
10	59.45	38.70	−7	+2	2.63	48.21	−1	−7	59.68	58.00	+9	−2	51.36	5.68	+4	+8
11	59.65	38.97	−6	−2	2.63	48.54	+3	−8	59.49	58.29	+10	+1	51.02	5.87	0	+7
12	59.84	39.25	−5	−4	2.63	48.86	+6	−6	59.29	58.58	+8	+4	50.68	6.06	−4	+5
13	60.02	39.53	−3	−6	2.61	49.19	+8	−4	59.09	58.86	+5	+7	50.33	6.24	−6	+2
14	60.20	39.81	+1	−7	2.59	49.52	+9	−1	58.88	59.15	+2	+8	49.98	6.42	−7	−2
15	60.37	40.10	+4	−7	2.57	49.84	+9	+2	58.67	59.43	−2	+7	49.62	6.59	−6	−5
16	60.53	40.39	+7	−6	2.54	50.17	+7	+6	58.45	59.71	−5	+4	49.27	6.76	−4	−8
17	60.69	40.68	+8	−3	2.50	50.50	+4	+8	58.22	59.99	−7	0	48.90	6.93	−1	−8
18	60.85	40.97	+9	0	2.45	50.82	0	+8	57.99	60.26	−7	−4	48.54	7.09	+2	−6
19	60.99	41.27	+8	+4	2.40	51.15	−4	+6	57.76	60.53	−6	−7	48.17	7.25	+4	−3
20	61.13	41.57	+5	+6	2.34 2.27	51.47 51.79	−7 −8	+2 −2	57.52	60.80	−3	−8	47.80	7.40	+5	+1
21	61.27	41.87	+2	+8	2.20	52.12	−7	−5	57.27	61.07	0	−7	47.43	7.55	+4	+4
22	61.40	42.17	−2	+7	2.12	52.44	−4	−7	57.02	61.33	+3	−5	47.05	7.70	+1	+7
23	61.52	42.48	−5	+4	2.04	52.76	−1	−8	56.77	61.59	+5	−2	46.67	7.84	−2	+8
24	61.63	42.78	−7	+1	1.95	53.08	+2	−6	56.51	61.85	+4	+2	46.29	7.98	−4	+7
25	61.74	43.09	−7	−3	1.85	53.40	+4	−4	56.24	62.10	+3	+5	45.91	8.11	−6	+6
26	61.84	43.40	−6	−6	1.75	53.71	+5	0	55.97	62.35	0	+7	45.52	8.24	−7	+3
27	61.94	43.71	−3	−8	1.64	54.03	+4	+3	55.70	62.60	−2	+8	45.13	8.36	−7	0
28	62.03	44.03	0	−7	1.53	54.35	+2	+6	55.42	62.84	−4	+7	44.74	8.48	−6	−3
29	62.12	44.34	+3	−5	1.41	54.66	0	+7	55.13	63.08	−6	+5	44.34	8.60	−4	−5
30	62.20	44.66	+5	−2	1.28	54.97	−3	+7	54.84	63.32	−7	+2	43.95	8.71	−2	−6
31	62.27	44.98	+5	+1	1.15	55.28	−5	+6	54.54	63.55	−7	−1	43.55	8.81	+2	−7
32	62.34	45.30	+4	+5					54.25	63.78	−5	−4	43.15	8.91	+5	−6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+86° 36′ 30″	16.903	+16.873	+86° 36′ 50″	16.931	+16.901	+86° 37′ 0″	16.945	+16.915
40	16.917	+16.887	60	16.945	+16.915	10	16.958	+16.929

$\alpha_{1939.0} = 17^h\ 51^m\ 52^s.56$ $\delta_{1939.0} = +86°\ 36'\ 43''.90$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nh) δ Ursae minoris $4^{m}.44$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$17^h 51^m$	+86° 37′	in $0^s.01$	in 0″.01	$17^h 51^m$	+86° 37′	in $0^s.01$	in 0″.01	$17^h 51^m$	+86° 36′	in $0^s.01$	in 0″.01	$17^h 51^m$	+86° 36′	in $0^s.01$	in 0″.01
1	$43^s.15$	8″.91	+5	−6	$30^s.56$	9″.68	+9	0	$18^s.32$	65″.85	0	+7	$9^s.87$	58″.19	−6	+1
2	42.74	9.01	+7	−5	30.14	9.63	+8	+3	17.97	65.65	−3	+6	9.67	57.88	−6	−3
3	42.34	9.10	+9	−2	29.72	9.57	+6	+6	17.62	65.44	−5	+3	9.48	57.57	−5	−6
4	41.93	9.18	+9	+1	29.30	9.51	+3	+7	17.28	65.24	−6	−1	9.30	57.26	−2	−8
5	41.52	9.26	+8	+4	28.88	9.45	−1	+7	16.94	65.03	−6	−4	9.12	56.95	+1	−7
6	41.11	9.34	+5	+7	28.47	9.38	−4	+5	16.60	64.81	−3	−7	8.95	56.63	+4	−5
7	40.70	9.41	+2	+7	28.05	9.30	−6	+2	16.27	64.59	0	−8	8.79	56.31	+6	−2
8	40.29	9.48	−2	+7	27.63	9.22	−6	−2	15.95	64.37	+3	−7	8.63	55.99	+5	+1
9	39.87	9.54	−5	+4	27.22	9.13	−5	−5	15.63	64.14	+5	−4	8.48	55.67	+4	+5
10	39.45	9.60	−6	0	26.81	9.04	−2	−8	15.31	63.91	+6	−1	8.34	55.35	+1	+7
11	39.04	9.65	−6	−4	26.40	8.95	+1	−8	15.00	63.67	+5	+3	8.21	55.02	−2	+8
12	38.62	9.70	−4	−7	25.99	8.85	+4	−6	14.69	63.43	+3	+6	8.08	54.70	−5	+7
13	38.20	9.74	−1	−8	25.58	8.74	+5	−3	14.39	63.19	0	+7	7.96	54.37	−7	+5
14	37.78	9.78	+2	−7	25.17	8.63	+5	+1	14.09	62.94	−3	+8	7.84	54.04	−8	+2
15	37.36	9.81	+4	−5	24.77	8.52	+4	+4	13.80	62.69	−6	+6	7.73	53.70	−7	−1
16	36.93	9.84	+5	−1	24.37	8.40	+1	+7	13.51	62.43	−7	+4	7.63	53.37	−6	−4
17	36.51	9.86	+4	+3	23.97	8.27	−2	+8	13.23	62.17	−8	+1	7.54	53.03	−3	−6
18	36.09	9.88	+3	+6	23.57	8.14	−5	+7	12.95	61.91	−7	−2	7.45	52.70	0	−7
19	35.66	9.89	0	+7	23.18	8.00	−7	+5	12.68	61.64	−5	−5	7.37	52.36	+3	−7
20	35.24	9.90	−3	+8	22.79	7.87	−8	+2	12.42	61.37	−2	−7	*)7.30	52.02	+6	−6
21	34.81	9.91	−6	+7	22.40	7.72	−8	−1	12.16	61.10	+1	−7	7.23	51.68	+8	−3
22	34.39	9.91	−7	+4	22.01	7.57	−6	−3	11.90	60.82	+4	−6	7.17	51.35	+9	0
23	33.96	9.90	−8	+1	21.63	7.42	−4	−6	11.65	60.54	+6	−5	7.12	51.01	+8	+3
24	33.54	9.89	−7	−2	21.25	7.27	−1	−7	11.41	60.26	+8	−2	7.08	50.67	+6	+6
25	33.11	9.88	−5	−4	20.87	7.10	+2	−7	11.17	59.97	+8	+1	7.05	50.33	+3	+7
26	32.69	9.86	−3	−6	20.49	6.94	+5	−6	10.93	59.68	+7	+4	7.02	49.99	−1	+7
27	32.26	9.83	0	−7	20.12	6.77	+7	−4	10.71	59.39	+5	+6	7.00	49.65	−4	+5
28	31.83	9.80	+3	−7	19.75	6.59	+8	−1	10.49	59.09	+1	+7	6.99	49.31	−6	+2
29	31.41	9.76	+6	−5	19.39	6.41	+8	+2	10.27	58.79	−2	+6	6.98	48.97	−7	−2
30	30.99	9.72	+8	−3	19.03	6.23	+6	+5	10.07	58.49	−5	+4	6.98	48.63	−6	−5
31	30.56	9.68	+9	0	18.67	6.04	+4	+7	9.87	58.19	−6	+1	6.99	48.29	−3	−7
32					18.32	5.85	0	+7					7.01	47.95	0	−8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+86° 36′ 40″	16.917	+16.887	+86° 36′ 50″	16.931	+16.901	+86° 37′ 0″	16.945	+16.915
50	16.931	+16.901	60	16.945	+16.915	10	16.958	+16.929

$\alpha_{1939.0} = 17^h\ 51^m\ 52^s.56$ $\delta_{1939.0} = +86°\ 36'\ 43''.90$

*) Tag der doppelten unteren Kulmination: Dez. 20.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Ni) λ Ursae minoris $6^m.55$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
		+	in			+	in			+	in			+	in	
	$18^h 33^m$	$89° 2'$	$0^s.01$	$0''.01$	$18^h 33^m$	$89° 2'$	$0^s.01$	$0''.01$	$18^h 34^m$	$89° 2'$	$0^s.01$	$0''.01$	$18^h 34^m$	$89° 2'$	$0^s.01$	$0''.01$
1	$50^s.28$	$43''.78$	+40	−1	$56^s.61$	$33''.95$	+ 5	+8	$21^s.13$	$27''.46$	− 2	+7	$59^s.35$	$25''.23$	−25	−4
2	50.09	43.45	+37	+3	57.22	33.66	−12	+6	22.25	27.30	−17	+5	60.63	25.26	−17	−7
3	49.93	43.12	+27	+6	57.84	33.38	−25	+4	23.38	27.14	−26	+1	61.90	25.29	− 5	−8
4	49.80	42.80	+12	+8	58.49	33.10	−32	0	24.52	26.99	−29	−3	63.17	25.33	+ 7	−6
5	49.69	42.47	− 5	+8	59.16	32.83	−31	−4	25.67	26.85	−25	−6	64.43	25.38	+16	−4
6	49.61	42.14	−22	+6	59.85	32.56	−24	−7	26.83	26.71	−14	−7	65.69	25.43	+21	0
7	49.56	41.81	−32	+2	60.57	32.29	−11	−8	28.01	26.58	− 2	−7	66.95	25.49	+19	+3
8	49.53	41.48	−35	−2	61.30	32.02	+ 2	−7	29.20	26.45	+10	−5	68.20	25.55	+13	+6
9	49.53	41.16	−31	−5	62.06	31.76	+12	−4	30.39	26.33	+17	−2	69.45	25.62	+ 3	+8
10	49.55	40.83	−20	−7	62.84	31.50	+18	0	31.60	26.21	+19	+2	70.69	25.70	− 8	+8
11	49.60	40.50	− 7	−7	63.64	31.25	+17	+3	32.81	26.10	+15	+5	71.92	25.78	−17	+7
12	49.68	40.18	+ 6	−6	64.46	31.00	+12	+6	34.03	26.00	+ 7	+7	73.15	25.87	−24	+5
13	49.78	39.85	+15	−3	65.30	30.75	+ 4	+8	35.26	25.90	− 3	+8	74.37	25.96	−27	+2
14	49.91	39.53	+18	+1	66.16	30.51	− 6	+8	36.49	25.81	−13	+8	75.58	26.06	−26	−2
15	50.06	39.20	+16	+4	67.04	30.27	−15	+7	37.73	25.73	−21	+6	76.78	26.17	−20	−4
16	50.24	38.88	+10	+7	67.94	30.04	−22	+5	38.98	25.65	−26	+3	77.98	26.28	−11	−7
17	50.45	38.56	+ 1	+8	68.85	29.81	−25	+2	40.23	25.58	−27	0	79.17	26.40	+ 1	−8
18	50.68	38.23	− 8	+8	69.79	29.59	−24	−1	41.49	25.51	−23	−3	80.34	26.52	+13	−7
19	50.94	37.91	−16	+6	70.74	29.37	−20	−4	42.75	25.45	−16	−5	81.51	26.65	+24	−6
20	51.23	37.60	−21	+4	71.71	29.15	−12	−6	44.02	25.40	− 6	−7	82.66	26.78	+32	−3
21	51.54	37.28	−23	+1	72.70	28.94	− 1	−8	45.29	25.35	+ 6	−8	83.81	26.92	+34	0
22	51.88	36.97	−22	−2	73.70	28.74	+12	−8	46.56	25.31	+18	−7	84.94	27.06	+30	+4
23	52.24	36.65	−16	−5	74.72	28.54	+24	−7	47.83	25.27	+28	−5	86.06	27.21	+20	+6
24	52.63	36.34	− 7	−7	75.75	28.35	+33	−4	49.11	25.24	+34	−2	87.17	27.36	+ 6	+7
25	53.04	36.04	+ 5	−8	76.80	28.16	+38	−1	50.39	25.22	+35	+2	88.27	27.52	− 9	+7
26	53.48	35.73	+18	−8	77.86	27.98	+36	+3	51.67	25.20	+28	+5	89.35	27.69	−21	+4
27	53.94	35.43	+30	−6	78.94	27.80	+27	+6	52.95	25.19	+17	+7	90.42	27.86	−27	+1
28	54.43	35.13	+38	−3	80.03	27.63	+13	+7	54.23	25.19	+ 3	+7	91.48	28.03	−27	−3
29	54.94	34.83	+40	+1	81.13	27.46	− 2	+7	55.51	25.19	−12	+6	92.52	28.21	−21	−6
30	55.47	34.53	+34	+4					56.79	25.20	−22	+3	93.55	28.40	− 9	−7
31	56.03	34.24	+22	+7					58.07	25.21	−28	−1	94.57	28.59	+ 3	−7
32	56.61	33.95	+ 5	+8					59.35	25.23	−25	−4				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 2′ 20″	59.617	+59.608	+89° 2′ 30″	59.790	+59.781	+89° 2′ 40″	59.964	+59.955
30	59.790	+59.781	40	59.964	+59.955	50	60.138	+60.130

$\alpha_{1939.0} = 18^h\ 35^m\ 27^s.06$ $\delta_{1939.0} = +89°\ 2'\ 36''.29$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Ni) λ Ursae minoris $6^{m}.55$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder	
	18^h35^m	+89° 2′	in 0.01 s	in 0.01 ″	18^h35^m	+89° 2′	in 0.01 s	in 0.01 ″
1	34.57	28.59	+ 3	−7	57.40	36.43	+20	+4
2	35.57	28.79	+14	−5	57.82	36.73	+13	+6
3	36.56	28.99	+21	−2	58.21	37.04	+ 3	+8
4	37.53	29.19	+22	+2	58.59	37.34	− 7	+8
5	38.49	29.40	+17	+5	58.94	37.65	−16	+6
6	39.43	29.61	+ 9	+7	59.27	37.96	−23	+4
7	40.35	29.83	− 2	+8	59.57	38.27	−25	+1
8	41.26	30.05	−12	+8	59.86	38.58	−24	−2
9	42.15	30.27	−21	+6	60.12	38.89	−18	−5
10	43.02	30.50	−26	+3	60.36	39.21	− 7	−7
11	43.88	30.73	−26	0	60.58	39.52	+ 5	−8
12	44.72	30.97	−22	−3	60.77	39.84	+18	−7
13	45.54	31.21	−14	−6	60.94	40.16	+28	−6
14	46.34	31.46	− 4	−7	61.09	40.48	+36	−3
15	47.12	31.71	+ 9	−8	61.22	40.80	+36	+1
16	47.89	31.96	+21	−7	61.32	41.12	+30	+4
17	48.64	32.22	+30	−4	61.41	41.45	+18	+7
18	49.36	32.48	+34	−1	61.47	41.77	+ 3	+7
19	50.07	32.74	+32	+3	61.50	42.10	−13	+6
20	50.75	33.01	+24	+5	61.52	42.42	−26	+4
21	51.42	33.28	+10	+7	61.51	42.75	−32	0
22	52.07	33.55	− 5	+7	61.48	43.07	−30	−4
23	52.69	33.83	−19	+5	61.42	43.40	−22	−6
24	53.30	34.11	−28	+2	61.35	43.72	−10	−7
25	53.88	34.39	−30	−2	61.25	44.05	+ 3	−7
26	54.45	34.67	−26	−5	61.13	44.38	+13	−4
27	54.99	34.97	−16	−7	60.98	44.70	+19	−1
28	55.51	35.26	− 3	−7	60.81	45.03	+19	+3
29	56.02	35.55	+ 9	−6	60.62	45.35	+14	+6
30	56.50	35.84	+18	−3	60.41	45.68	+ 5	+7
31	56.96	36.13	+22	0	60.17 59.92	46.00 46.33	− 4 −14	+8 +7
32	57.40	36.43	+20	+4				

Tag	Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	18^h35^m	+89° 2′	in 0.01 s	in 0.01 ″	18^h35^m	+89° 2′	in 0.01 s	in 0.01 ″
1	60.17 59.92	46.00 46.33	− 4 −14	+8 +7	41.42	55.73	−22	−3
2	59.64	46.65	−21	+5	40.51	56.00	−15	−5
3	59.33	46.98	−25	+2	39.58	56.27	− 5	−7
4	59.01	47.30	−25	−1	38.64	56.54	+ 7	−7
5	58.66	47.62	−20	−4	37.67	56.80	+19	−7
6	58.30	47.94	−12	−6	36.69	57.06	+30	−5
7	57.91	48.26	0	−7	35.70	57.31	+37	−2
8	57.49	48.58	+13	−8	34.68	57.56	+38	+1
9	57.06	48.90	+25	−7	33.65	57.81	+33	+4
10	56.61	49.22	+35	−4	32.60	58.06	+22	+7
11	56.13	49.53	+39	−1	31.54	58.30	+ 7	+7
12	55.64	49.85	+36	+3	30.46	58.54	−10	+6
13	55.12	50.16	+27	+6	29.36	58.77	−22	+3
14	54.58	50.47	+12	+7	28.25	59.00	−29	0
15	54.02	50.78	− 4	+7	27.12	59.23	−28	−4
16	53.44	51.09	−19	+5	25.98	59.46	−20	−7
17	52.83	51.39	−29	+2	24.83	59.68	− 8	−8
18	52.21	51.70	−32	−2	23.66	59.90	+ 4	−7
19	51.57	52.00	−27	−5	22.48	60.12	+14	−4
20	50.91	52.30	−16	−7	21.28	60.33	+18	0
21	50.22	52.60	− 4	−7	20.07	60.54	+16	+4
22	49.52	52.89	+ 8	−5	18.84	60.74	+10	+6
23	48.79	53.19	+16	−2	17.60	60.94	0	+8
24	48.05	53.48	+18	+2	16.35	61.14	−11	+8
25	47.29	53.77	+15	+5	15.08	61.33	−20	+7
26	46.51	54.05	+ 7	+7	13.81	61.52	−26	+4
27	45.70	54.34	− 3	+8	12.52	61.70	−28	+1
28	44.88	54.62	−13	+7	11.22	61.88	−26	−2
29	44.04	54.90	−20	+6	9.91	62.06	−20	−4
30	43.18	55.18	−25	+3	8.59	62.23	−11	−6
31	42.31	55.45	−26	0	7.25	62.40	+ 1	−7
32	41.42	55.73	−22	−3	5.91	62.56	+13	−7

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 2′ 20″	59.617	+59.608	+89° 2′ 40″	59.964	+59.955	+89° 3′ 0″	60.314	+60.306
30	59.790	+59.781	50	60.138	+60.130	10	60.491	+60.483

$\alpha_{1939.0} = 18^h\ 35^m\ 27^s.06$ $\delta_{1939.0} = +89°\ 2'\ 36''.29$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Ni) λ Ursae minoris $6^m.55$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		+	in			+	in			+	in			+	in	
	$18^h 34^m$	89° 3′	$0^s.01$	0″.01	$18^h 33^m$	89° 3′	$0^s.01$	0″.01	$18^h 33^m$	89° 2′	$0^s.01$	0″.01	$18^h 32^m$	89° 2′	$0^s.01$	0″.01
1	$65^s.91$	2″.56	+13	−7	$82^s.08$	5″.39	+33	−1	$35^s.93$	63″.71	+ 7	+7	$60^s.22$	57″.71	−24	+2
2	64.56	2.72	+24	−6	80.55	5.41	+34	+2	34.54	63.57	− 6	+6	59.30	57.45	−27	−2
3	63.20	2.87	+33	−3	79.02	5.42	+28	+5	33.16	63.43	−18	+4	58.40	57.18	−22	−5
4	61.82	3.02	+37	0	77.49	5.43	+17	+7	31.80	63.29	−24	0	57.51	56.91	−12	−7
5	60.44	3.17	+35	+3	75.97	5.44	+ 4	+7	30.44	63.14	−24	−3	56.65	56.64	0	−7
6	59.04	3.31	+27	+6	74.44	5.45	− 9	+5	29.09	62.99	−17	−6	55.81	56.36	+12	−6
7	57.64	3.45	+14	+7	72.91	5.45	−19	+3	27.76	62.83	− 6	−7	54.99	56.08	+20	−3
8	56.23	3.58	− 1	+7	71.38	5.44	−24	−1	26.44	62.67	+ 6	−7	54.19	55.80	+23	0
9	54.81	3.71	−15	+4	69.86	5.43	−22	−4	25.13	62.50	+17	−5	53.42	55.51	+19	+4
10	53.39	3.84	−23	+1	68.33	5.41	−13	−7	23.83	62.33	+22	−2	52.66	55.22	+11	+6
11	51.95	3.96	−26	−3	66.81	5.38	− 2	−8	22.55	62.15	+22	+2	51.93	54.93	0	+8
12	50.51	4.08	−21	−6	65.29	5.35	+10	−6	21.28	61.97	+16	+5	51.22	54.63	−12	+7
13	49.06	4.19	−11	−7	63.77	5.31	+18	−4	20.03	61.78	+ 6	+7	50.53	54.34	−21	+6
14	47.60	4.30	+ 1	−7	62.26	5.27	+22	0	18.79	61.59	− 6	+8	49.87	54.04	−27	+3
15	46.14	4.40	+12	−5	60.75	5.23	+19	+4	17.56	61.40	−17	+7	49.23	53.73	−28	0
16	44.67	4.50	+18	−2	59.24	5.18	+10	+6	16.35	61.20	−26	+5	48.62	53.43	−25	−3
17	43.19	4.59	+19	+2	57.74	5.13	− 1	+8	15.15	61.00	−30	+2	48.03	53.12	−18	−5
18	41.71	4.68	+14	+5	56.24	5.07	−13	+8	13.97	60.79	−29	−1	47.46	52.81	− 7	−7
19	40.22	4.76	+ 4	+7	54.75	5.00	−23	+6	12.81	60.58	−23	−4	46.92	52.50	+ 6	−7
20	38.73	4.84	− 8	+8	53.26	4.93	−29	+4	11.66	60.36	−14	−6	46.40	52.19	+18	−7
21	37.23	4.91	−18	+7	51.78	4.86	−31	+1	10.53	60.14	− 2	−7	45.91	51.87	+28	−5
22	35.73	4.98	−26	+5	50.30	4.78	−27	−2	9.42	59.91	+10	−7	45.44	51.55	+34	−2
23	34.23	5.04	−30	+3	48.83	4.69	−20	−5	8.32	59.68	+22	−6	45.00	51.24	+34	+2
24	32.72	5.10	−29	0	47.36	4.60	−10	−6	7.24	59.45	+29	−4	44.58	50.92	+29	+5
25	31.21	5.16	−24	−3	45.90	4.51	+ 2	−7	6.18	59.21	+33	0	44.19	50.59	+17	+7
26	29.69	5.21	−15	−5	44.45	4.41	+14	−7	5.14	58.97	+31	+3	43.83	50.27	+ 3	+7
27	28.17	5.26	− 5	−7	43.01	4.31	+24	−5	4.12	58.73	+23	+5	43.49	49.94	−11	+6
28	26.65	5.30	+ 7	−7	41.57	4.20	+31	−2	3.11	58.48	+11	+7	43.18	49.62	−23	+3
29	25.13	5.33	+19	−6	40.15	4.08	+33	+1	2.13	58.23	− 3	+7	42.89	49.29	−28	0
30	23.60	5.36	+28	−4	38.73	3.96	+28	+4	1.16	57.97	−16	+5	*)42.63	48.97	−27	−4
31	22.08	5.39	+33	−1	37.33	3.84	+19	+6	0.22	57.71	−24	+2	42.39	48.64	−19	−6
32					35.93	3.71	+ 7	+7					42.18	48.31	− 7	−7

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 2′ 40″	59.964	+59.955	+89° 2′ 50″	60.138	+60.130	+89° 3′ 0″	60.314	+60.306
50	60.138	+60.130	60	60.314	+60.306	10	60.491	+60.483

$\alpha_{1939.0} = 18^h\ 35^m\ 27^s.06$ $\delta_{1939.0} = +89°\ 2'\ 36''.29$

*) Tag der doppelten unteren Kulmination: Dez. 30.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nk) 76 Draconis $5^m.69$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	20^h46^m	+82° 18′	in $0^s.01$	in $0''.01$	20^h46^m	+82° 18′	in $0^s.01$	in $0''.01$	20^h46^m	+82° 18′	in $0^s.01$	in $0''.01$	20^h47^m	+82° 18′	in $0^s.01$	in $0''.01$
1	$60^s.25$	$44''.81$	+2	−6	$58^s.52$	$35''.37$	+2	+6	$59^s.51$	$26''.41$	+2	+7	$3^s.06$	$19''.37$	−3	0
2	60.15	44.55	+3	−3	*)58.51	35.04	+1	+7	59.59	26.12	0	+7	3.21	19.22	−3	−4
3	60.05	44.28	+3	+1	58.51	34.70	−1	+7	59.67	25.83	−2	+5	3.36	19.08	−2	−6
4	59.96	44.01	+2	+5	58.50	34.37	−2	+4	59.75	25.55	−3	+2	3.50	18.95	−1	−6
5	59.87	43.74	+2	+7	58.51	34.04	−3	+1	59.84	25.27	−3	−2	3.65	18.82	0	−5
6	59.78	43.46	0	+8	58.51	33.71	−3	−3	59.93	24.99	−3	−5	3.81	18.70	+1	−3
7	59.70	43.18	−2	+6	58.52	33.38	−3	−5	60.02	24.72	−2	−6	3.96	18.59	+2	0
8	59.61	42.90	−3	+3	58.53	33.05	−2	−6	60.12	24.45	−1	−6	4.11	18.48	+3	+4
9	59.53	42.61	−4	0	58.55	32.72	0	−5	60.21	24.19	+1	−4	4.27	18.37	+3	+6
10	59.45	42.32	−3	−4	58.57	32.39	+1	−3	60.31	23.92	+2	−1	4.42	18.27	+2	+8
11	59.38	42.03	−3	−6	58.59	32.06	+2	0	60.41	23.67	+2	+2	4.58	18.18	+1	+8
12	59.31	41.74	−1	−6	58.61	31.73	+3	+4	60.52	23.41	+3	+5	4.74	18.10	0	+7
13	59.24	41.44	0	−4	58.64	31.41	+3	+6	60.63	23.16	+2	+7	4.90	18.02	−1	+5
14	59.18	41.14	+2	−1	58.67	31.08	+2	+8	60.74	22.92	+1	+8	5.06	17.95	−2	+2
15	59.12	40.83	+2	+1	58.71	30.76	+1	+8	60.85	22.68	0	+8	5.22	17.88	−3	−1
16	59.06	40.53	+3	+4	58.74	30.43	0	+7	60.97	22.45	−1	+6	5.38	17.82	−3	−4
17	59.00	40.22	+2	+7	58.79	30.11	−1	+5	61.08	22.22	−2	+4	5.54	17.77	−2	−7
18	58.95	39.91	+1	+7	58.83	29.79	−2	+2	61.20	21.99	−2	+1	5.70	17.72	−1	−8
19	58.89	39.60	+1	+7	58.88	29.47	−2	−1	61.32	21.77	−3	−2	5.86	17.68	0	−9
20	58.85	39.28	0	+6	58.93	29.15	−3	−4	61.44	21.55	−2	−5	6.02	17.64	+1	−7
21	58.80	38.96	−1	+4	58.98	28.83	−2	−7	61.56	21.34	−2	−8	6.18	17.61	+2	−4
22	58.76	38.64	−2	+1	59.04	28.52	−1	−9	61.69	21.13	−1	−9	6.34	17.59	+3	−1
23	58.72	38.32	−3	−2	59.10	28.21	0	−9	61.82	20.93	+1	−8	6.51	17.57	+3	+3
24	58.68	37.99	−2	−5	59.16	27.91	+1	−8	61.95	20.74	+2	−6	6.67	17.56	+2	+5
25	58.65	37.67	−2	−8	59.23	27.60	+2	−6	62.08	20.55	+3	−3	6.83	17.56	+1	+7
26	58.62	37.34	−1	−9	59.29	27.30	+3	−2	62.22	20.36	+3	0	7.00	17.56	0	+6
27	58.60	37.02	0	−9	59.36	27.00	+3	+1	62.35	20.19	+3	+4	7.16	17.57	−2	+4
28	58.57	36.69	+2	−8	59.44	26.70	+3	+5	62.49	20.01	+2	+6	7.32	17.58	−3	+1
29	58.56	36.36	+3	−5	59.51	26.41	+2	+7	62.63	19.84	+1	+7	7.49	17.60	−3	−2
30	58.54	36.03	+4	−1					62.77	19.68	−1	+6	7.65	17.63	−3	−5
31	58.53	35.70	+3	+3					62.91	19.52	−2	+3	7.82	17.66	−2	−6
32	58.52	35.37	+2	+6					63.06	19.37	−3	0				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 18′ 10″	7.466	+7.399	+82° 18′ 30″	7.471	+7.404	+82° 18′ 40″	7.474	+7.407
20	7.469	+7.402	40	7.474	+7.407	50	7.477	+7.410

$\alpha_{1939.0} = 20^h\ 47^m\ 7^s.62$ $\delta_{1939.0} = +82°\ 18'\ 25''.50$

*) Tag der doppelten unteren Kulmination: Febr. 2.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Nk) 76 Draconis $5^{m}.69$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		+	in			+	in			+	in			+	in	
	$20^{h}47^{m}$	82° 18′	$0^{s}.01$	$0''.01$	$20^{h}47^{m}$	82° 18′	$0^{s}.01$	$0''.01$	$20^{h}47^{m}$	82° 18′	$0^{s}.01$	$0''.01$	$20^{h}47^{m}$	82° 18′	$0^{s}.01$	$0''.01$
1	$7^{s}.82$	$17''.66$	−2	−6	$12^{s}.56$	$21''.59$	+2	+1	$15^{s}.68$	$29''.73$	+2	+7	$16^{s}.61$	$40''.50$	−2	+4
2	7.98	17.70	0	−6	12.69	21.80	+3	+4	15.75	30.06	+1	+8	16.60	40.87	−2	+1
3	8.15	17.74	+1	−4	12.82	22.02	+2	+6	15.82	30.38	0	+7	16.59	41.23	−3	−2
4	8.31	17.80	+2	−1	12.95	22.24	+2	+8	15.88	30.71	−1	+5	16.57 16.55	41.59 41.95	−2 −2	−5 −7
5	8.47	17.85	+3	+2	13.08	22.47	+1	+8	15.94	31.04	−2	+3	16.53	42.31	−1	−9
6	8.63	17.92	+3	+5	13.20	22.70	−1	+6	16.00	31.37	−3	−1	16.50	42.67	+1	−9
7	8.80	17.99	+2	+7	13.33	22.94	−1	+4	16.06	31.71	−3	−4	16.47	43.03	+2	−7
8	8.96	18.06	+1	+8	13.45	23.18	−2	+1	16.11	32.04	−2	−7	16.44	43.39	+3	−4
9	9.12	18.14	0	+8	13.57	23.42	−3	−2	16.16	32.38	−1	−8	16.41	43.75	+3	0
10	9.28	18.23	−1	+6	13.69	23.67	−3	−5	16.21	32.72	0	−9	16.37	44.11	+3	+3
11	9.44	18.32	−2	+3	13.81	23.92	−2	−8	16.26	33.06	+1	−8	16.33	44.46	+2	+5
12	9.60	18.42	−3	0	13.92	24.18	−1	−9	16.30	33.41	+2	−6	16.29	44.82	+1	+7
13	9.76	18.52	−3	−3	14.03	24.44	0	−9	16.34	33.75	+3	−2	16.24	45.17	−1	+6
14	9.92	18.64	−2	−6	14.14	24.71	+2	−7	16.38	34.10	+3	+1	16.20	45.53	−2	+3
15	10.07	18.75	−2	−8	14.25	24.98	+3	−4	16.41	34.45	+3	+5	16.15	45.88	−3	0
16	10.23	18.88	0	−9	14.35	25.25	+3	0	16.45	34.79	+2	+7	16.09	46.23	−3	−3
17	10.38	19.01	+1	−8	14.46	25.52	+3	+3	16.48	35.14	0	+7	16.04	46.58	−3	−6
18	10.54	19.14	+2	−6	14.56	25.80	+2	+6	16.50	35.50	−2	+5	15.98	46.93	−1	−6
19	10.69	19.28	+3	−2	14.66	26.08	+1	+7	16.53	35.85	−3	+2	15.92	47.28	0	−5
20	10.84	19.43	+3	+1	14.76	26.37	−1	+6	16.55	36.20	−3	−1	15.86	47.63	+1	−3
21	10.99	19.58	+3	+5	14.86	26.66	−2	+4	16.57	36.56	−3	−4	15.80	47.97	+2	+1
22	11.14	19.74	+2	+7	14.95	26.96	−3	+1	16.59	36.91	−2	−6	15.73	48.31	+3	+4
23	11.28	19.90	0	+7	15.04	27.25	−3	−3	16.60	37.27	−1	−6	15.66	48.65	+2	+7
24	11.43	20.07	−1	+6	15.13	27.55	−3	−5	16.61	37.63	0	−4	15.59	48.99	+2	+9
25	11.58	20.24	−3	+3	15.22	27.86	−2	−6	16.62	37.99	+2	−1	15.52	49.33	0	+8
26	11.72	20.42	−3	−1	15.30	28.16	0	−5	16.63	38.34	+2	+2	15.44	49.67	−1	+7
27	11.86	20.60	−3	−4	15.38	28.47	+1	−3	16.63	38.70	+2	+5	15.36	50.00	−2	+5
28	12.00	20.79	−2	−6	15.46	28.78	+2	0	16.64	39.06	+2	+7	15.28	50.33	−2	+2
29	12.14	20.98	−1	−6	15.54	29.09	+3	+3	16.63	39.42	+1	+8	15.19	50.66	−3	−1
30	12.28	21.18	0	−5	15.61	29.41	+2	+6	16.63	39.78	0	+8	15.11	50.99	−2	−4
31	12.42	21.38	+2	−3	15.68	29.73	+2	+7	16.62	40.14	−1	+6	15.02	51.32	−2	−7
32	12.56	21.59	+2	+1					16.61	40.50	−2	+4	14.93	51.64	−1	−8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 18′ 10″	7.466	+7.399	+82° 18′ 30″	7.471	+7.404	+82° 18′ 50″	7.477	+7.410
20	7.469	+7.402	40	7.474	+7.407	60	7.480	+7.412

$\alpha_{1939.0} = 20^{h}\ 47^{m}\ 7^{s}.62$ $\delta_{1939.0} = +82°\ 18'\ 25''.50$

Nk) 76 Draconis 5^m69

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	20^h47^m	+ 82° 18′	in $0^s.01$	in $0''.01$	20^h47^m	+ 82° 18′	in $0^s.01$	in $0''.01$	20^h47^m	+ 82° 19′	in $0^s.01$	in $0''.01$	20^h46^m	+ 82° 18′	in $0^s.01$	in $0''.01$
1	$14^s.93$	$51''.64$	−1	−8	$11^s.29$	$59''.97$	+2	−6	$6^s.22$	$4''.63$	+2	+5	$61^s.12$	$64''.14$	−1	+5
2	14.83	51.96	0	−8	11.14	60.19	+3	−3	6.05	4.70	+1	+6	60.96	64.04	−2	+2
3	14.74	52.28	+1	−7	10.99	60.41	+3	0	5.88	4.76	0	+6	60.81	63.92	−3	−1
4	14.64	52.60	+2	−5	10.84	60.62	+3	+3	5.70	4.82	−2	+4	60.65	63.81	−3	−4
5	14.54	52.91	+3	−2	10.69	60.83	+2	+5	5.53	4.87	−3	0	60.49	63.68	−2	−6
6	14.44	53.22	+3	+2	10.53	61.03	+1	+6	5.35	4.91	−3	−3	60.34	63.55	−1	−7
7	14.34	53.53	+3	+5	10.38	61.23	−1	+5	5.18	4.95	−3	−6	60.19	63.41	+1	−5
8	14.23	53.83	+2	+6	10.22	61.43	−2	+2	5.00	4.98	−2	−7	60.04	63.27	+2	−2
9	14.13	54.14	0	+6	10.07	61.62	−3	−1	4.83	5.01	0	−6	59.89	63.12	+2	+1
10	14.02	54.43	−2	+4	9.91	61.81	−3	−4	4.65	5.03	+1	−4	59.74	62.97	+3	+4
11	13.91	54.73	−3	+1	9.75	61.99	−2	−6	4.48	5.05	+2	−1	59.60	62.81	+2	+7
12	13.79	55.02	−3	−2	9.59	62.16	−1	−7	4.31	5.06	+3	+3	59.45	62.65	+1	+8
13	13.68	55.31	−3	−5	9.43	62.34	0	−5	4.14	5.06	+2	+6	59.31	62.48	0	+8
14	13.56	55.60	−2	−7	9.27	62.50	+2	−3	3.96	5.06	+2	+8	59.17	62.31	−1	+7
15	13.44	55.89	−1	−6	9.11	62.66	+2	+1	3.79	5.05	+1	+9	59.04	62.13	−2	+4
16	13.32	56.17	+1	−4	8.94	62.82	+3	+4	3.62	5.04	0	+8	58.90	61.95	−3	+1
17	13.20	56.45	+2	−1	8.78	62.97	+2	+7	3.45	5.02	−1	+6	58.77	61.76	−3	−2
18	13.08	56.72	+3	+3	8.61	63.12	+1	+9	3.27	5.00	−2	+3	58.63	61.57	−2	−5
19	12.95	57.00	+2	+6	8.44	63.26	0	+9	3.10	4.97	−3	0	58.50	61.37	−2	−7
20	12.82	57.26	+2	+8	8.28	63.40	−1	+7	2.93	4.93	−3	−3	58.37	61.17	−1	−8
21	12.69	57.53	+1	+9	8.11	63.53	−2	+5	2.76	4.89	−2	−6	58.25	60.96	+1	−8
22	12.56	57.79	0	+8	7.94	63.65	−3	+2	2.59	4.84	−1	−7	58.12	60.75	+2	−6
23	12.42	58.05	−1	+6	7.77	63.78	−3	−1	2.43	4.79	0	−8	58.00	60.53	+2	−3
24	12.29	58.30	−2	+3	7.60	63.89	−2	−4	2.26	4.73	+1	−7	57.88	60.30	+3	0
25	12.15	58.55	−3	0	7.43	64.00	−2	−7	2.09	4.66	+2	−5	57.76	60.07	+3	+3
26	12.01	58.80	−3	−3	7.26	64.11	−1	−8	1.93	4.59	+3	−2	57.64	59.84	+2	+6
27	11.87	59.04	−2	−5	7.09	64.21	0	−8	1.77	4.51	+3	+2	57.52	59.60	+1	+7
28	11.73	59.28	−1	−7	6.92	64.31	+1	−6	1.60	4.43	+3	+5	57.41	59.36	−1	+6
29	11.58	59.51	0	−8	6.74	64.40	+2	−4	1.44	4.34	+2	+6	57.30	59.12	−2	+3
30	11.43	59.74	+1	−8	6.57	64.48	+3	−1	1.28	4.24	0	+6	57.19	58.87	−3	0
31	11.29	59.97	+2	−6	6.40	64.56	+3	+3	1.12	4.14	−1	+5	57.09	58.62	−3	−3
32					6.22	64.63	+2	+5					56.98	58.36	−3	−6

δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 18′ 50″	7.477	+7.410	+82° 19′ 0″	7.480	+7.412
60	7.480	+7.412	10	7.482	+7.415

$\alpha_{1939.0} = 20^h\ 47^m\ 7^s.62$ $\delta_{1939.0} = +82°\ 18'\ 25''.50$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sa) Octantis 4 G. $5^m.63$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in	
	$1^h 40^m$	−85° 4′	0.01 s	0.01 ″	$1^h 40^m$	−85° 4′	0.01 s	0.01 ″	$1^h 40^m$	−85° 4′	0.01 s	0.01 ″	$1^h 40^m$	−85° 4′	0.01 s	0.01 ″
1	41.27	60.06	+1	−10	33.08	57.98	−5	−2	26.78	51.61	−5	0	22.43	41.29	+4	+7
2	41.00	60.08	−2	−10	32.83	57.82	−4	+3	26.59	51.32	−3	+4	22.35	40.92	+5	+5
3	40.74	60.10	−4	−8	32.58	57.65	−2	+6	26.41	51.03	−1	+7	22.27	40.55	+5	+2
4	40.47	60.11	−6	−4	32.33	57.48	0	+9	26.22	50.73	+2	+8	22.20	40.19	+4	−1
5	40.20	60.12	−6	+1	32.08	57.30	+3	+9	26.04	50.43	+4	+7	22.13	39.82	+2	−4
6	39.94	60.12	−4	+5	31.83	57.12	+5	+7	25.87	50.12	+5	+5	22.06	39.45	0	−5
7	39.67	60.11	−1	+8	31.59	56.93	+5	+4	25.69	49.82	+5	+1	21.99	39.08	−3	−6
8	39.40	60.10	+2	+10	31.35	56.74	+5	0	25.52	49.50	+4	−2	21.93	38.71	−5	−4
9	39.14	60.08	+4	+9	31.11	56.54	+2	−3	25.35	49.19	+1	−4	21.87	38.33	−6	−2
10	38.87	60.06	+5	+6	30.87	56.34	0	−5	25.18	48.87	−2	−5	21.82	37.96	−6	+1
11	38.60	60.03	+5	+2	30.64	56.13	−3	−5	25.02	48.55	−4	−5	21.77	37.59	−5	+3
12	38.33	59.99	+4	−1	30.40	55.92	−5	−4	24.86	48.23	−5	−3	21.72	37.21	−3	+5
13	38.07	59.95	+1	−4	30.17	55.71	−6	−2	24.71	47.90	−6	−1	21.68	36.84	−1	+7
14	37.80	59.90	−1	−5	29.94	55.48	−6	0	24.55	47.58	−6	+2	21.64	36.46	+1	+7
15	37.53	59.84	−3	−5	29.71	55.26	−5	+3	24.41	47.25	−4	+4	21.61	36.09	+3	+6
16	37.26	59.78	−5	−4	29.49	55.03	−3	+5	24.26	46.91	−2	+6	21.58	35.72	+5	+4
17	37.00	59.72	−6	−2	29.26	54.79	−1	+6	24.12	46.58	0	+7	*)21.56	35.35	+6	+1
18	36.73	59.64	−5	+1	29.04	54.55	+1	+6	23.98	46.24	+2	+6	21.54	34.97	+5	−2
19	36.47	59.56	−4	+3	28.82	54.30	+3	+6	23.85	45.90	+4	+5	21.52	34.60	+4	−5
20	36.20	59.48	−2	+5	28.60	54.05	+5	+4	23.72	45.56	+5	+3	21.51	34.23	+2	−8
21	35.93	59.39	0	+6	28.39	53.80	+6	+1	23.59	45.21	+6	0	21.50	33.86	−1	−9
22	35.67	59.29	+2	+6	28.18	53.54	+6	−2	23.47	44.86	+5	−4	21.49	33.48	−3	−8
23	35.41	59.18	+4	+5	27.97	53.28	+5	−5	23.35	44.51	+4	−7	21.49	33.11	−5	−6
24	35.14	59.07	+5	+3	27.77	53.01	+3	−8	23.23	44.16	+1	−9	21.49	32.74	−5	−2
25	34.88	58.96	+6	0	27.56	52.74	0	−10	23.12	43.81	−1	−9	21.50	32.37	−4	+2
26	34.62	58.84	+6	−4	27.36	52.46	−2	−10	23.01	43.45	−4	−8	21.51	32.00	−3	+5
27	34.36	58.71	+4	−7	27.17	52.18	−4	−8	22.91	43.10	−5	−5	21.52	31.63	0	+7
28	34.10	58.58	+2	−9	26.97	51.90	−5	−4	22.80	42.74	−5	−1	21.54	31.26	+2	+8
29	33.85	58.44	−1	−10	26.78	51.61	−5	0	22.71	42.38	−4	+3	21.56	30.90	+4	+6
30	33.59	58.29	−3	−9					22.61	42.01	−2	+6	21.59	30.53	+5	+3
31	33.33	58.14	−5	−6					22.52	41.65	+1	+8	21.62	30.17	+5	0
32	33.08	57.98	−5	−2					22.43	41.29	+4	+7				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 4′ 30″	11.648	−11.605	−85° 4′ 40″	11.655	−11.612	−85° 5′ 0″	11.668	−11.625
40	11.655	−11.612	50	11.661	−11.618	10	11.674	−11.631

$\alpha_{1939.0} = 1^h\ 40^m\ 42^s.88$ $\delta_{1939.0} = -85°\ 4'\ 41''.97$

*) Tag der doppelten unteren Kulmination: April 17.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sa) Octantis 4 G. $5^m\!.63$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder in		Juni AR.	Juni Dekl.	Juni ☾ Glieder in		Juli AR.	Juli Dekl.	Juli ☾ Glieder in		August AR.	August Dekl.	August ☾ Glieder in	
	$1^h\,40^m$	$-85°\,4'$	$0^s\!.01$	$0''\!.01$	$1^h\,40^m$	$-85°\,4'$	$0^s\!.01$	$0''\!.01$	$1^h\,40^m$	$-85°\,4'$	$0^s\!.01$	$0''\!.01$	$1^h\,40^m$	$-85°\,4'$	$0^s\!.01$	$0''\!.01$
1	$21^s\!.62$	$30''\!.17$	+5	0	$24^s\!.44$	$19''\!.85$	−3	−6	$30^s\!.06$	$13''\!.05$	−6	0	$37^s\!.43$	$10''\!.95$	0	+6
2	21.66	29.81	+4	−3	24.59	19.56	−5	−4	30.28	12.90	−5	+2	37.67	10.98	+2	+6
3	21.70	29.44	+1	−5	24.74	19.28	−6	−2	30.50	12.76	−3	+5	37.91	11.01	+4	+5
4	21.74	29.08	−2	−6	24.89	19.00	−5	+1	30.73	12.62	−1	+6	38.15	11.05	+5	+2
5	21.79	28.73	−4	−5	25.05	18.72	−4	+3	30.95	12.48	+1	+7	38.39	11.09	+6	−1
6	21.84	28.37	−5	−3	25.21	18.45	−3	+5	31.18	12.35	+3	+6	38.63	11.14	+5	−4
7	21.89	28.01	−6	−1	25.37	18.18	−1	+6	31.41	12.23	+5	+4	38.86	11.20	+4	−7
8	21.95	27.66	−5	+2	25.53	17.91	+2	+6	31.65	12.11	+6	+1	39.10	11.26	+2	−9
9	22.01	27.30	−4	+4	25.70	17.65	+4	+5	31.88	11.99	+6	−2	39.33	11.33	−1	−9
10	22.07	26.95	−2	+6	25.87	17.39	+5	+3	32.11	11.88	+5	−5	39.57	11.40	−3	−9
11	22.14	26.60	+1	+7	26.05	17.14	+6	0	32.35	11.78	+3	−8	39.80	11.48	−5	−6
12	22.21	26.25	+3	+6	26.22	16.89	+5	−3	32.59	11.68	0	−10	40.03	11.56	−5	−2
13	22.29	25.90	+5	+5	26.40	16.65	+4	−7	32.82	11.59	−2	−10	40.26	11.65	−4	+2
14	22.37	25.56	+6	+2	26.59	16.41	+2	−9	33.06	11.50	−4	−7	40.49	11.75	−2	+6
15	22.46	25.22	+6	−1	26.77	16.18	−1	−9	33.30	11.42	−5	−4	40.71	11.85	+1	+8
16	22.54	24.88	+5	−4	26.96	15.95	−3	−8	33.54	11.35	−5	+1	40.94	11.96	+3	+8
17	22.64	24.54	+3	−7	27.15	15.72	−5	−5	33.78	11.28	−3	+5	41.17	12.07	+5	+6
18	22.73	24.21	0	−9	27.34	15.50	−5	−1	34.03	11.22	−1	+8	41.39	12.19	+5	+3
19	22.83	23.88	−2	−9	27.54	15.28	−4	+3	34.27	11.16	+2	+9	41.61	12.32	+4	0
20	22.93	23.55	−4	−7	27.74	15.07	−2	+7	34.51	11.11	+4	+8	41.83	12.45	+2	−3
21	23.04	23.23	−5	−4	27.94	14.86	0	+8	34.76	11.06	+5	+5	42.05	12.58	0	−5
22	23.15	22.90	−5	0	28.14	14.65	+3	+8	35.00	11.02	+5	+2	42.26	12.72	−3	−5
23	23.26	22.59	−4	+4	28.35	14.45	+5	+7	35.25	10.99	+3	−2	42.47	12.87	−5	−3
24	23.38	22.27	−1	+7	28.56	14.26	+5	+3	35.49	10.96	+1	−4	42.68	13.02	−6	−1
25	23.50	21.96	+2	+8	28.77	14.07	+4	0	35.73	10.94	−2	−5	42.89	13.18	−6	+1
26	23.62	21.65	+4	+7	28.98	13.89	+3	−3	35.97	10.92	−4	−5	43.10	13.34	−5	+4
27	23.75	21.34	+5	+5	29.19	13.71	0	−5	36.22	10.91	−5	−3	43.31	13.51	−3	+6
28	23.88	21.03	+5	+2	29.40	13.54	−2	−6	36.46	10.91	−6	−1	43.51	13.68	−1	+7
29	24.01	20.73	+4	−2	29.62	13.37	−4	−5	36.70	10.91	−5	+2	43.71	13.86	+1	+7
30	24.15	20.43	+2	−4	29.84	13.21	−5	−3	36.94	10.92	−4	+4	43.90	14.04	+3	+6
31	24.29	20.14	−1	−6	30.06	13.05	−6	0	37.19	10.93	−2	+6	44.09	14.23	+5	+4
32	24.44	19.85	−3	−6					37.43	10.95	0	+6	44.28	14.42	+5	+1

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 4′ 10″	11.635	−11.592	−85° 4′ 20″	11.641	−11.598	−85° 4′ 30″	11.648	−11.605
20	11.641	−11.598	30	11.648	−11.605	40	11.655	−11.612

$\alpha_{1939.0} = 1^h\,40^m\,42^s\!.88$ $\qquad \delta_{1939.0} = -85°\,4'\,41''\!.97$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sa) Octantis 4 G. $5^m.63$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	$1^h\ 40^m$	85° 4′	$0^s.01$	0″.01	$1^h\ 40^m$	85° 4′	$0^s.01$	0″.01	$1^h\ 40^m$	85° 4′	$0^s.01$	0″.01	$1^h\ 40^m$	85° 4′	$0^s.01$	0″.01
1	44.28	14.42	+5	+1	48.37	22.16	+3	−7	48.38	32.41	−5	−2	44.18	40.52	−1	+6
2	44.47	14.62	+5	−2	48.44	22.46	+1	−8	48.30	32.72	−4	+1	43.99	40.73	+2	+7
3	44.65	14.82	+4	−5	48.51	22.77	−2	−9	48.22	33.04	−2	+4	43.78	40.93	+4	+6
4	44.83	15.03	+2	−8	48.57	23.08	−4	−8	48.13	33.34	0	+6	43.58	41.13	+5	+4
5	45.01	15.24	0	−9	48.63	23.39	−5	−5	48.04	33.65	+3	+7	43.37	41.32	+5	+1
6	45.19	15.46	−2	−9	48.69	23.70	−5	−2	47.94	33.96	+5	+5	43.16	41.51	+4	−2
7	45.36	15.68	−4	−7	48.74	24.02	−4	+2	47.84	34.26	+5	+3	42.95	41.69	+2	−5
8	45.53	15.91	−5	−4	48.79	24.34	−1	+5	47.74	34.56	+5	−1	42.73	41.87	−1	−6
9	45.69	16.14	−5	0	48.83	24.66	+1	+7	47.63	34.85	+3	−4	42.51	42.04	−3	−5
10	45.86	16.37	−3	+4	48.87	24.98	+4	+6	47.52	35.15	+1	−6	42.29	42.21	−5	−4
11	46.01	16.61	0	+6	48.90	25.30	+5	+4	47.40	35.44	−2	−6	42.06	42.37	−6	−1
12	46.17	16.85	+2	+7	48.92	25.62	+5	+1	47.27	35.73	−4	−5	41.84	42.52	−5	+2
13	46.32	17.10	+4	+6	48.95	25.94	+4	−2	47.15	36.02	−6	−3	41.61	42.67	−4	+5
14	46.47	17.35	+5	+4	48.96	26.27	+2	−4	47.02	36.30	−6	0	41.38	42.81	−2	+6
15	46.61	17.61	+5	+1	48.97	26.60	−1	−6	46.88	36.58	−5	+3	41.14	42.95	0	+7
16	46.75	17.87	+3	−2	48.98	26.92	−3	−5	46.74	36.85	−4	+6	40.90	43.08	+2	+7
17	46.89	18.13	+1	−5	48.98 48.98	27.25 27.58	−5 −6	−4 −1	46.59	37.13	−1	+7	40.67	43.21	+4	+5
18	47.02	18.40	−2	−5	48.97	27.90	−6	+2	46.44	37.39	+1	+7	40.42	43.33	+5	+3
19	47.15	18.67	−4	−4	48.96	28.23	−5	+5	46.29	37.66	+3	+6	40.18	43.44	+5	0
20	47.28	18.94	−5	−2	48.95	28.55	−2	+7	46.13	37.92	+5	+5	39.94	43.55	+5	−4
21	47.40	19.22	−6	+1	48.93	28.88	0	+8	45.97	38.18	+5	+2	39.69	43.65	+3	−7
22	47.51	19.50	−5	+3	48.90	29.20	+2	+7	45.81	38.43	+5	−2	39.44	43.75	+1	−9
23	47.63	19.78	−4	+6	48.87	29.53	+4	+6	45.64	38.68	+4	−5	39.20	43.84	−1	−9
24	47.73	20.07	−2	+7	48.84	29.85	+5	+3	45.47	38.93	+2	−7	38.94	43.92	−3	−8
25	47.84	20.36	+1	+7	48.80	30.18	+5	0	45.30	39.17	0	−8	38.69	44.00	−5	−5
26	47.94	20.65	+2	+6	48.75	30.50	+5	−3	45.12	39.41	−2	−8	38.43	44.07	−5	−1
27	48.03	20.95	+4	+5	48.70	30.82	+3	−6	44.94	39.64	−4	−7	38.18	44.14	−4	+2
28	48.12	21.25	+5	+2	48.64	31.15	+1	−8	44.76	39.87	−5	−3	37.92	44.20	−2	+6
29	48.21	21.55	+5	−1	48.58	31.46	−1	−8	44.57	40.09	−5	0	37.66	44.25	+1	+8
30	48.29	21.85	+5	−4	48.52	31.78	−3	−8	44.38	40.31	−3	+4	37.40	44.30	+3	+8
31	48.37	22.16	+3	−7	48.45	32.10	−5	−6	44.18	40.52	−1	+6	37.14	44.34	+5	+6
32					48.38	32.41	−5	−2					36.88	44.36	+5	+3

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 4′ 10″	11.635	−11.592	−85° 4′ 20″	11.641	−11.598	−85° 4′ 40″	11.655	−11.612
20	11.641	−11.598	30	11.648	−11.605	50	11.661	−11.618

$\alpha_{1939.0} = 1^h\ 40^m\ 42^s.88$ $\delta_{1939.0} = -85°\ 4'\ 41''.97$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sb) ξ Mensae $5^{m}.85$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder	
	$5^h 5^m$	−82° 33′	in 0.01s	in 0.01″	$5^h 5^m$	−82° 33′	in 0.01s	in 0.01″
1	51.52	32.15	+3	−4	47.32	39.59	−2	−6
2	51.42	32.45	+2	−7	47.16	39.76	−2	−3
3	51.32	32.75	0	−8	46.99	39.92	−3	+1
4	51.22	33.04	−1	−8	46.81	40.07	−2	+5
5	51.11	33.33	−2	−5	46.64	40.23	−1	+8
6	51.00	33.61	−3	−1	46.47	40.37	0	+9
7	50.89	33.90	−3	+3	46.29	40.51	+1	+7
8	50.78	34.17	−2	+7	46.12	40.65	+2	+5
9	50.66	34.45	−1	+8	45.94	40.78	+2	+1
10	50.54	34.72	0	+8	45.76	40.90	+1	−3
11	50.42	34.99	+1	+6	45.58	41.02	0	−6
12	50.30	35.25	+2	+3	45.40	41.13	0	−7
13	50.17	35.51	+2	−1	45.22	41.24	−1	−7
14	50.04	35.77	+1	−4	45.03	41.34	−2	−6
15	49.91	36.02	0	−6	44.85	41.44	−3	−4
16	49.77	36.27	−1	−7	44.66	41.53	−3	−1
17	49.64	36.51	−2	−7	44.48	41.62	−2	+2
18	49.50	36.75	−2	−5	44.29	41.70	−1	+4
19	49.36	36.98	−2	−3	44.10	41.78	0	+6
20	49.21	37.21	−2	0	43.91	41.85	+1	+7
21	49.06	37.44	−2	+3	43.72	41.91	+2	+7
22	48.92	37.66	−1	+5	43.53	41.97	+3	+5
23	48.76	37.87	0	+7	43.34	42.03	+3	+2
24	48.61	38.08	+1	+7	43.14	42.07	+3	−1
25	48.46	38.29	+2	+6	42.95	42.12	+3	−5
26	48.30	38.49	+3	+4	42.76	42.16	+2	−7
27	48.14	38.68	+4	+1	42.57	42.19	+1	−8
28	47.99	38.87	+3	−3	42.37	42.22	−1	−7
29	47.82	39.06	+3	−6	42.18	42.24	−2	−5
30	47.66	39.24	+1	−8				
31	47.49	39.42	0	−8				
32	47.32	39.59	−2	−6				

Tag	März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
	$5^h 5^m$	−82° 33′	in 0.01s	in 0.01″	$5^h 5^m$	−82° 33′	in 0.01s	in 0.01″
1	42.18	42.24	−2	−5	36.31	40.31	−1	+7
2	41.98	42.25	−3	−1	36.14	40.17	0	+8
3	41.79	42.26	−2	+3	35.96	40.02	+1	+7
4	41.59	42.27	−2	+7	35.78	39.87	+2	+4
5	41.40	42.27	0	+8	35.61	39.72	+2	0
6	41.21	42.26	+1	+8	35.44	39.56	+1	−3
7	41.01	42.25	+2	+6	35.27	39.40	+1	−6
8	40.82	42.24	+2	+3	35.10	39.23	0	−8
9	40.63	42.22	+2	−1	34.93	39.06	−1	−7
10	40.43	42.19	+1	−5	34.76	38.88	−2	−6
11	40.24	42.16	0	−7	34.59	38.70	−3	−3
12	40.05	42.12	−1	−7	34.43	38.51	−3	0
13	39.86	42.08	−2	−7	34.27	38.33	−2	+3
14	39.66	42.03	−3	−5	34.11	38.13	−1	+5
15	39.47	41.98	−3	−2	33.95	37.93	0	+7
16	39.28	41.92	−3	+1	33.79	37.73	+1	+7
17	39.09	41.86	−2	+4	33.63	37.53	+2	+7
18	38.90	41.79	−1	+6	33.48	37.31	+3	+4
19	38.71	41.72	0	+7	33.33	37.10	+3	+1
20	38.52	41.64	+1	+7	33.18	36.88	+3	−2
21	38.33	41.56	+2	+6	33.03	36.66	+2	−5
22	38.14	41.47	+3	+3	32.89	36.43	+1	−7
23	37.95	41.38	+3	0	32.75	36.20	0	−8
24	37.77	41.28	+3	−3	32.61	35.97	−1	−6
25	37.58	41.18	+2	−6	32.47	35.73	−2	−4
26	37.40	41.07	+1	−8	32.33	35.49	−3	0
27	37.21	40.96	0	−8	32.19	35.24	−2	+4
28	37.03	40.84	−2	−6	32.06	35.00	−1	+7
29	36.85	40.71	−2	−2	31.93	34.74	0	+8
30	36.67	40.58	−2	+1	31.80	34.49	+1	+7
31	36.49	40.45	−2	+5	31.67	34.23	+2	+5
32	36.31	40.31	−1	+7				

δ	sec δ	tg δ	δ	sec δ	tg δ
−82° 33′ 30″	7.721	−7.656	−82° 33′ 40″	7.724	−7.659
40	7.724	−7.659	50	7.727	−7.662

$\alpha_{1939.0} = 5^h\ 5^m\ 44^s.48$ $\delta_{1939.0} = -82°\ 33'\ 18''.27$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sb) ξ Mensae $5^m_.85$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$5^h 5^m$	$-82° 33'$	in $0^s_.01$	in $0''_.01$	$5^h 5^m$	$-82° 33'$	in $0^s_.01$	in $0''_.01$	$5^h 5^m$	$-82° 33'$	in $0^s_.01$	in $0''_.01$	$5^h 5^m$	$-82° 33'$	in $0^s_.01$	in $0''_.01$
1	$31^s_.67$	$34''_.23$	+2	+5	$28^s_.97$	$25''_.00$	+1	−6	$28^s_.91$	$15''_.16$	−2	−6	$31^s_.44$	$6''_.52$	−2	+3
2	31.54	33.97	+2	+2	28.93	24.67	0	−8	28.95	14.84	−3	−4	31.56	6.30	−1	+5
3	31.42	33.71	+2	−2	28.89	24.34	−2	−7	28.99	14.53	−3	−1	31.68	6.08	0	+7
4	31.30	33.44	+1	−5	28.85	24.01	−2	−5	29.04	14.22	−2	+2	31.81	5.86	+1	+7
5	31.18	33.17	0	−7	28.82	23.69	−3	−3	29.09	13.91	−1	+4	31.93	5.65	+2	+6
6	31.07	32.90	−1	−8	28.78	23.36	−2	0	29.14	13.60	−1	+6	32.06	5.44	+3	+3
7	30.95	32.63	−2	−7	28.75	23.03	−2	+3	29.20	13.29	+1	+7	32.19	5.24	+3	0
8	30.84	32.35	−3	−5	*)28.72	22.70	−1	+5	29.26	12.98	+2	+7	32.32	5.04	+3	−3
9	30.73	32.07	−3	−2	28.70	22.37	0	+7	29.32	12.68	+3	+5	32.45	4.85	+2	−6
10	30.63	31.79	−3	+1	28.68	22.04	+1	+7	29.38	12.38	+3	+2	32.58	4.66	+1	−8
11	30.53	31.51	−2	+4	28.66	21.71	+2	+6	29.45	12.08	+3	−1	32.72	4.48	0	−8
12	30.43	31.22	−1	+6	28.65	21.37	+3	+4	29.52	11.78	+3	−5	32.86	4.30	−1	−6
13	30.33	30.93	0	+7	28.64	21.04	+3	+1	29.59	11.49	+2	−7	33.00	4.13	−2	−3
14	30.23	30.63	+2	+7	28.63	20.71	+3	−3	29.67	11.20	+1	−8	33.14	3.96	−2	+1
15	30.14	30.34	+3	+6	28.62	20.38	+2	−6	29.74	10.91	−1	−7	33.28	3.80	−2	+5
16	30.05	30.04	+3	+3	28.62	20.05	+1	−8	29.82	10.63	−2	−5	33.42	3.64	−1	+8
17	29.96	29.74	+3	0	28.61	19.72	0	−8	29.91	10.35	−3	−1	33.57	3.49	0	+8
18	29.88	29.44	+3	−4	28.62	19.39	−2	−6	29.99	10.07	−3	+3	33.72	3.34	+1	+7
19	29.80	29.13	+2	−7	28.62	19.06	−2	−3	30.08	9.79	−2	+6	33.87	3.20	+2	+4
20	29.72	28.82	0	−8	28.63	18.73	−3	+1	30.17	9.52	−1	+8	34.02	3.06	+2	+1
21	29.64	28.51	−1	−7	28.64	18.40	−2	+5	30.26	9.25	0	+8	34.17	2.93	+1	−3
22	29.57	28.20	−2	−5	28.65	18.07	−1	+8	30.35	8.98	+1	+6	34.32	2.81	0	−6
23	29.50	27.89	−3	−1	28.67	17.74	0	+8	30.45	8.72	+2	+3	34.48	2.69	−1	−7
24	29.43	27.57	−2	+2	28.69	17.42	+1	+7	30.55	8.46	+2	−1	34.63	2.57	−2	−7
25	29.36	27.26	−2	+6	28.71	17.09	+2	+4	30.65	8.21	+1	−5	34.79	2.47	−3	−5
26	29.30	26.94	−1	+8	28.74	16.77	+2	+1	30.76	7.95	0	−6	34.94	2.36	−3	−3
27	29.24	26.62	0	+8	28.77	16.44	+2	−3	30.87	7.71	−1	−7	35.10	2.27	−3	0
28	29.18	26.30	+1	+6	28.80	16.12	+1	−6	30.98	7.46	−2	−6	35.26	2.18	−2	+3
29	29.12	25.98	+2	+3	28.83	15.80	0	−7	31.09	7.22	−2	−4	35.42	2.10	−1	+5
30	29.07	25.65	+2	0	28.87	15.48	−1	−7	31.20	6.98	−3	−2	35.58	2.02	0	+6
31	29.02	25.32	+1	−4	28.91	15.16	−2	−6	31.32	6.75	−2	+1	35.75	1.95	+1	+7
32	28.97	25.00	+1	−6					31.44	6.52	−2	+3	35.91	1.88	+2	+6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−82° 33′ 0″	7.712	−7.647	−82° 33′ 10″	7.715	−7.650	−82° 33′ 30″	7.721	−7.656
10	7.715	−7.650	20	7.718	−7.653	40	7.724	−7.659

$\alpha_{1939.0} = 5^h\ 5^m\ 44^s_.48$ $\delta_{1939.0} = -82°\ 33'\ 18''_.27$

*) Tag der doppelten unteren Kulmination: Juni 8.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sb) ξ Mensae $5^{m}.85$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
	$5^h\ 5^m$	—82° 33′	in $0^s.01$	in $0''.01$	$5^h\ 5^m$	—82° 33′	in $0^s.01$	in $0''.01$	$5^h\ 5^m$	—82° 33′	in $0^s.01$	in $0''.01$	$5^h\ 5^m$	—82° 33′	in $0^s.01$	in $0''.01$
1	35.91	1.88	+2	+6	40.83	2.77	+3	0	44.91	9.22	0	−8	46.55	18.93	−2	−1
2	36.07	1.82	+3	+4	40.98	2.89	+3	−4	45.01	9.50	−1	−6	46.55	19.28	−2	+2
3	36.23	1.77	+3	+2	41.14	3.02	+2	−6	45.10	9.79	−2	−3	46.56	19.62	−2	+6
4	36.40	1.72	+3	−2	41.29	3.16	+1	−8	45.20	10.08	−2	0	46.55	19.97	0	+7
5	36.56	1.68	+3	−5	41.45	3.30	0	−7	45.28	10.37	−2	+4	46.55	20.31	+1	+7
6	36.73	1.64	+2	−7	41.60	3.45	−1	−5	45.37	10.67	−1	+6	46.54	20.66	+2	+6
7	36.89	1.61	+1	−8	41.75	3.61	−2	−2	45.45	10.97	0	+7	46.53	21.01	+2	+3
8	37.06	1.59	−1	−7	41.90	3.77	−2	+1	45.53	11.28	+1	+7	46.52 / 46.50	21.36 / 21.71	+2 / +1	−1 / −4
9	37.22	1.57	−2	−5	42.05	3.94	−1	+5	45.61	11.59	+2	+5	46.48	22.05	0	−6
10	37.39	1.56	−2	−1	42.19	4.12	0	+7	45.68	11.90	+2	+1	46.45	22.40	−1	−7
11	37.56	1.56	−2	+3	42.34	4.30	+1	+8	45.75	12.21	+2	−2	46.43	22.74	−2	−7
12	37.72	1.56	−1	+6	42.48	4.48	+2	+6	45.82	12.53	+1	−5	46.39	23.09	−3	−5
13	37.89	1.56	0	+8	42.62	4.67	+2	+4	45.89	12.85	0	−7	46.36	23.43	−3	−2
14	38.06	1.58	+1	+8	42.76	4.87	+2	0	45.95	13.17	−1	−7	46.32	23.77	−3	+1
15	38.22	1.59	+2	+6	42.89	5.07	+1	−4	46.01	13.49	−2	−6	46.28	24.11	−2	+4
16	38.39	1.62	+2	+2	43.03	5.27	0	−6	46.07	13.82	−3	−3	46.23	24.45	−1	+6
17	38.55	1.65	+2	−2	43.16	5.48	−1	−7	46.13	14.15	−3	−1	46.18	24.79	0	+7
18	38.72	1.69	+1	−5	43.29	5.70	−2	−7	46.18	14.48	−3	+2	46.13	25.12	+1	+7
19	38.88	1.74	0	−7	43.42	5.92	−3	−5	46.23	14.81	−2	+5	46.08	25.45	+2	+5
20	39.05	1.79	−1	−7	43.55	6.15	−3	−2	46.27	15.15	−1	+6	46.02	25.78	+3	+3
21	39.21	1.85	−2	−6	43.67	6.38	−3	+1	46.31	15.48	0	+7	45.96	26.11	+3	0
22	39.37	1.91	−3	−4	43.80	6.62	−2	+4	46.35	15.82	+1	+6	45.90	26.44	+3	−3
23	39.54	1.98	−3	−1	43.92	6.86	−1	+6	46.39	16.16	+2	+5	45.83	26.77	+2	−6
24	39.70	2.06	−3	+2	44.04	7.10	0	+7	46.42	16.50	+3	+2	45.76	27.09	+1	−8
25	39.86	2.14	−2	+4	44.16	7.35	+1	+7	46.45	16.84	+3	−1	45.69	27.41	0	−8
26	40.03	2.23	−1	+6	44.28	7.60	+2	+6	46.47	17.19	+2	−4	45.61	27.73	−1	−6
27	40.19	2.32	0	+7	44.39	7.86	+3	+4	46.49	17.54	+2	−7	45.54	28.04	−2	−3
28	40.35	2.42	+1	+7	44.50	8.13	+3	+1	46.51	17.89	0	−8	45.45	28.36	−2	+1
29	40.51	2.53	+2	+5	44.61	8.39	+3	−2	46.53	18.23	−1	−7	45.37	28.67	−2	+5
30	40.67	2.65	+3	+3	44.71	8.67	+2	−5	46.54	18.58	−2	−5	45.28	28.97	−1	+7
31	40.83	2.77	+3	0	44.81	8.94	+1	−7	46.55	18.93	−2	−1	45.20	29.28	0	+8
32					44.91	9.22	0	−8					45.11	29.58	+1	+7

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−82° 33′ 0″	7.712	−7.647	−82° 33′ 10″	7.715	−7.650	−82° 33′ 20″	7.718	−7.653
10	7.715	−7.650	20	7.718	−7.653	30	7.721	−7.656

$\alpha_{1939.0} = 5^h\ 5^m\ 44^s.48$ $\delta_{1939.0} = -82°\ 33'\ 18''.27$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sc) ζ Octantis $5^m.38$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$9^h 6^m$	$85° 25'$	$0^s.01$	$0''.01$	$9^h 6^m$	$85° 25'$	$0^s.01$	$0''.01$	$9^h 6^m$	$85° 25'$	$0^s.01$	$0''.01$	$9^h 5^m$	$85° 25'$	$0^s.01$	$0''.01$
	s	"			s	"			s	"			s	"		
1	11.51	14.27	+4	+8	13.36	25.56	+5	−4	10.91	36.27	+1	−7	64.74	45.43	−6	+2
2	11.64	14.60	+6	+5	13.34	25.94	+3	−6	10.76	36.61	−2	−6	64.49	45.66	−5	+4
3	11.77	14.94	+7	+1	13.32	26.33	0	−7	10.61	36.95	−4	−4	64.24	45.90	−3	+6
4	11.90	15.28	+6	−3	13.29	26.71	−3	−6	10.45	37.29	−6	−1	63.99	46.12	−1	+6
5	12.02	15.62	+4	−6	13.25	27.09	−6	−3	10.29	37.63	−6	+3	63.74	46.34	+1	+5
6	12.13	15.96	+1	−8	13.22	27.47	−7	0	10.13	37.96	−5	+5	63.49	46.56	+4	+2
7	12.24	16.31	−2	−7	13.17 13.12	27.85 28.23	−6 −4	+3 +5	9.96	38.29	−3	+6	63.24	46.78	+5	−2
8	12.34	16.66	−5	−5	13.07	28.61	−2	+5	9.79	38.62	0	+5	62.98	46.98	+5	−5
9	12.44	17.01	−7	−2	13.01	28.99	+1	+4	9.62	38.94	+3	+3	62.72	47.19	+4	−7
10	12.53	17.36	−7	+1	12.95	29.37	+3	+1	9.44	39.26	+4	0	62.46	47.39	+2	−8
11	12.62	17.72	−6	+4	12.88	29.74	+5	−2	9.26	39.58	+5	−3	62.20	47.58	0	−8
12	12.70	18.08	−3	+5	12.81	30.12	+5	−5	9.08	39.89	+4	−6	61.93	47.77	−2	−6
13	12.78	18.44	−1	+5	12.73	30.49	+4	−7	8.89	40.21	+3	−8	61.67	47.96	−4	−4
14	12.86	18.80	+2	+3	12.65	30.86	+2	−8	8.70	40.51	+1	−8	61.40	48.14	−5	−1
15	12.93	19.17	+4	0	12.56	31.24	0	−8	8.50	40.82	−1	−7	61.13	48.31	−5	+2
16	12.99	19.53	+5	−3	12.47	31.61	−1	−6	8.30	41.12	−3	−5	60.87	48.48	−4	+5
17	13.05	19.90	+5	−5	12.38	31.97	−3	−4	8.10	41.42	−4	−3	60.60	48.65	−3	+8
18	13.11	20.27	+3	−7	12.28	32.34	−4	−1	7.90	41.71	−5	0	60.32	48.81	−1	+8
19	13.16	20.64	+2	−7	12.18	32.71	−5	+2	7.69	42.00	−5	+3	60.05	48.96	+2	+8
20	13.20	21.01	0	−7	12.07	33.07	−4	+5	7.48	42.29	−4	+6	59.78	49.11	+4	+6
21	13.24	21.39	−2	−5	11.96	33.44	−3	+8	7.26	42.57	−2	+8	59.50	49.26	+6	+3
22	13.28	21.76	−3	−3	11.84	33.80	−1	+9	7.04	42.85	0	+9	59.23	49.40	+6	−1
23	13.31	22.14	−5	0	11.72	34.16	+1	+9	6.83	43.13	+3	+8	58.95	49.53	+5	−4
24	13.33	22.52	−5	+3	11.60	34.51	+4	+7	6.60	43.40	+5	+5	58.67	49.66	+3	−6
25	13.35	22.89	−4	+6	11.47	34.87	+6	+5	6.38	43.67	+6	+2	58.39	49.79	0	−7
26	13.37	23.27	−2	+9	11.34	35.22	+7	+1	6.15	43.93	+6	−1	58.12	49.91	−2	−5
27	13.38	23.65	0	+10	11.20	35.57	+6	−2	5.92	44.19	+5	−4	57.84	50.02	−4	−3
28	13.38	24.03	+3	+9	11.06	35.92	+4	−5	5.69	44.45	+2	−6	57.56	50.13	−6	0
29	13.38	24.41	+5	+7	10.91	36.27	+1	−7	5.46	44.70	0	−6	57.28	50.24	−5	+3
30	13.38	24.80	+6	+3					5.22	44.95	−3	−5	57.00	50.34	−4	+5
31	13.37	25.18	+7	−1					4.98	45.19	−5	−2	56.72	50.43	−2	+6
32	13.36	25.56	+5	−4					4.74	45.43	−6	+2				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 25′ 10″	12.522	−12.482	−85° 25′ 30″	12.537	−12.497	−85° 25′ 50″	12.552	−12.512
20	12.529	−12.489	40	12.545	−12.505	60	12.560	−12.520

$\alpha_{1939.0} = 9^h\ 5^m\ 55^s.84$ $\delta_{1939.0} = -85°\ 25'\ 18''.01$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sc) ζ Octantis $5^m_{\cdot}38$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$9^h\ 5^m$	−85° 25′	in $0^s.01$	in $0''.01$	$9^h\ 5^m$	−85° 25′	in $0^s.01$	in $0''.01$	$9^h\ 5^m$	−85° 25′	in $0^s.01$	in $0''.01$	$9^h\ 5^m$	−85° 25′	in $0^s.01$	in $0''.01$
1	56.72	50.43	−2	+6	48.13	50.71	+5	−2	41.32	46.32	+3	−8	37.48	38.15	−4	−3
2	56.43	50.52	+1	+5	47.87	50.64	+5	−5	41.14	46.10	+1	−7	37.43	37.85	−5	0
3	56.15	50.61	+3	+3	47.61	50.56	+4	−7	40.96	45.88	−1	−6	37.38	37.55	−5	+3
4	55.87	50.69	+5	0	47.36	50.47	+2	−8	40.79	45.66	−3	−4	37.34	37.25	−4	+6
5	55.59	50.76	+5	−3	47.10	50.38	0	−7	40.61	45.43	−4	−1	37.30	36.94	−2	+8
6	55.30	50.83	+4	−6	46.85	50.29	−2	−6	40.45	45.20	−5	+2	37.26	36.63	0	+9
7	55.02	50.89	+3	−8	46.60	50.19	−4	−3	40.28	44.97	−4	+5	37.23	36.33	+3	+8
8	54.74	50.95	+1	−8	46.35	50.08	−5	0	40.12	44.73	−3	+7	*)37.21	36.02	+5	+6
9	54.46	51.00	−1	−7	46.10	49.97	−5	+3	39.96	44.49	−1	+9	37.19	35.71	+6	+3
10	54.18	51.05	−3	−5	45.85	49.85	−4	+6	39.81	44.24	+2	+9	37.17	35.40	+7	−1
11	53.89	51.09	−4	−2	45.61	49.73	−2	+8	39.66	43.99	+4	+8	37.16	35.08	+5	−4
12	53.61	51.12	−5	+1	45.37	49.61	0	+9	39.51	43.74	+6	+5	37.15	34.77	+3	−6
13	53.33	51.15	−5	+4	45.13	49.48	+2	+8	39.37	43.49	+7	+1	37.15	34.46	0	−6
14	53.04	51.18	−3	+7	44.90	49.34	+5	+6	39.23	43.23	+6	−3	37.15	34.15	−3	−5
15	52.76	51.20	−2	+8	44.66	49.20	+6	+3	39.10	42.97	+4	−6	37.16	33.84	−5	−2
16	52.48	51.21	+1	+9	44.43	49.06	+6	−1	38.97	42.71	+1	−7	37.17	33.53	−6	+1
17	52.20	51.22	+3	+7	44.21	48.91	+5	−5	38.85	42.44	−2	−6	37.19	33.22	−6	+4
18	51.92	51.23	+5	+4	43.98	48.75	+3	−7	38.73	42.17	−5	−4	37.21	32.91	−4	+6
19	51.65	51.23	+6	+1	43.76	48.59	0	−7	38.61	41.90	−6	−1	37.24	32.60	−1	+6
20	51.37	51.22	+5	−3	43.54	48.42	−3	−6	38.50	41.62	−6	+2	37.27	32.29	+1	+4
21	51.09	51.21	+4	−6	43.33	48.25	−5	−3	38.39	41.35	−5	+5	37.30	31.98	+3	+1
22	50.82	51.19	+1	−7	43.11	48.08	−6	0	38.29	41.06	−3	+6	37.34	31.67	+5	−2
23	50.55	51.16	−1	−7	42.90	47.90	−6	+3	38.19	40.78	0	+5	37.39	31.36	+4	−5
24	50.27	51.13	−4	−5	42.70	47.72	−4	+5	38.09	40.50	+2	+3	37.44	31.05	+3	−8
25	50.00	51.10	−6	−1	42.49	47.53	−1	+6	38.00	40.21	+4	0	37.50	30.75	+2	−9
26	49.73	51.06	−6	+2	42.29	47.34	+1	+5	37.91	39.92	+5	−3	37.56	30.45	0	−8
27	49.46	51.01	−5	+5	42.09	47.14	+3	+2	37.83	39.64	+4	−6	37.63	30.14	−2	−6
28	49.19	50.96	−3	+6	41.89	46.94	+5	−1	37.75	39.34	+3	−8	37.70	29.84	−4	−4
29	48.93	50.91	0	+6	41.70	46.74	+5	−4	37.68	39.05	+1	−8	37.78	29.54	−5	−1
30	48.66	50.85	+2	+4	41.51	46.53	+4	−6	37.61	38.75	−1	−7	37.86	29.24	−5	+2
31	48.40	50.78	+4	+1	41.32	46.32	+3	−8	37.54	38.45	−3	−5	37.95	28.94	−4	+5
32	48.13	50.71	+5	−2					37.48	38.15	−4	−3	38.04	28.65	−3	+7

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 25′ 20″	12.529	−12.489	−85° 25′ 30″	12.537	−12.497	−85° 25′ 50″	12.552	−12.512
30	12.537	−12.497	40	12.545	−12.505	60	12.560	−12.520

$\alpha_{1939.0} = 9^h\ 5^m\ 55^s.84$ $\delta_{1939.0} = -85°\ 25'\ 18''.01$

*) Tag der doppelten unteren Kulmination: Aug. 8.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sc) ζ Octantis $5^m.38$

Tag	September AR.	September Dekl.	September ☾ Glieder in		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder in		November AR.	November Dekl.	November ☾ Glieder in		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder in	
	$9^h 5^m$	−85° 25′	$0^s.01$	$0''.01$	$9^h 5^m$	−85° 25′	$0^s.01$	$0''.01$	$9^h 5^m$	−85° 25′	$0^s.01$	$0''.01$	$9^h 5^m$	−85° 25′	$0^s.01$	$0''.01$
1	$38^s.04$	$28''.65$	−3	+7	$42^s.76$	$21''.10$	+3	+7	$50^s.66$	$17''.84$	+5	−4	$58^s.78$	$20''.48$	−1	−6
2	38.13	28.35	−1	+8	42.98	20.91	+5	+5	50.93	17.83	+3	−6	59.03	20.66	−4	−4
3	38.23	28.06	+2	+8	43.20	20.73	+6	+2	51.21	17.83	+1	−6	59.27	20.85	−5	−1
4	38.33	27.77	+4	+7	43.43	20.55	+6	−1	51.49	17.84	−2	−5	59.52	21.05	−6	+2
5	38.44	27.48	+6	+4	43.65	20.37	+5	−4	51.77	17.85	−4	−2	59.75	21.25	−5	+5
6	38.55	27.19	+7	+1	43.89	20.20	+3	−5	52.05	17.87	−5	+1	59.99	21.46	−2	+6
7	38.67	26.91	+6	−2	44.12	20.04	0	−6	52.33	17.90	−5	+4	60.22	21.67	0	+6
8	38.79	26.63	+4	−5	44.36	19.88	−3	−4	52.61	17.93	−4	+6	60.45	21.89	+2	+4
9	38.92	26.35	+2	−6	44.59	19.73	−5	−1	52.89	17.97	−1	+7	60.68	22.12	+4	+1
10	39.05	26.08	−1	−5	44.84	19.58	−5	+2	53.17	18.01	+1	+6	60.90	22.35	+5	−2
11	39.19	25.81	−4	−3	45.08	19.44	−5	+5	53.44	18.07	+3	+3	61.12	22.58	+5	−5
12	39.33	25.54	−6	0	45.33	19.30	−3	+7	53.72	18.13	+5	0	61.34	22.82	+3	−7
13	39.47	25.27	−6	+3	45.58	19.17	−1	+6	54.00	18.19	+5	−4	61.55	23.07	+1	−8
14	39.62	25.01	−4	+5	45.83	19.05	+2	+4	54.28	18.26	+4	−7	61.76	23.32	−1	−7
15	39.77	24.74	−2	+6	46.08	18.93	+4	+1	54.55	18.34	+2	−8	61.97	23.57	−3	−6
16	39.93	24.49	0	+5	46.34	18.82	+5	−2	54.83	18.43	0	−8	62.17	23.83	−4	−3
17	40.09	24.23	+3	+3	46.60	18.71	+5	−6	55.10	18.52	−2	−7	62.37	24.09	−5	0
18	40.26	23.98	+4	−1	46.86	18.61	+3	−8	55.37	18.62	−4	−5	62.57	24.36	−5	+3
19	40.43	23.73	+5	−4	47.13	18.51	+1	−9	55.65	18.72	−5	−2	62.76	24.64	−4	+6
20	40.61	23.49	+4	−7	47.39	18.43	−1	−8	55.92	18.83	−5	+1	62.95	24.91	−2	+8
21	40.78	23.25	+2	−9	47.65	18.34	−3	−6	56.18	18.95	−5	+4	63.13	25.20	0	+8
22	40.97	23.02	0	−9	47.92	18.27	−4	−4	56.45	19.08	−3	+7	63.31	25.48	+3	+7
23	41.15	22.79	−2	−7	48.19	18.20	−5	−1	56.72	19.21	−1	+8	63.49	25.77	+5	+5
24	41.34	22.56	−4	−5	48.46	18.13	−5	+2	56.98	19.34	+1	+8	63.66	26.07	+6	+2
25	41.53	22.34	−5	−2	48.73	18.07	−4	+5	57.25	19.49	+3	+6	63.83	26.37	+6	−1
26	41.73	22.12	−5	+1	49.00	18.02	−2	+7	57.51	19.64	+5	+4	63.99	26.67	+5	−4
27	41.93	21.91	−5	+4	49.27	17.97	0	+8	57.77	19.80	+6	+1	64.15	26.98	+3	−6
28	42.13	21.70	−3	+6	49.55	17.93	+2	+7	58.03	19.96	+5	−3	64.30	27.29	0	−6
29	42.34	21.50	−1	+7	49.82	17.90	+4	+5	58.28	20.12	+4	−5	64.45	27.61	−3	−5
30	42.55	21.30	+1	+8	50.10	17.87	+5	+3	58.53	20.30	+1	−6	64.60	27.92	−5	−2
31	42.76	21.10	+3	+7	50.38	17.85	+6	0	58.78	20.48	−1	−6	64.74	28.25	−6	+1
32					50.66	17.84	+5	−4					64.88	28.57	−5	+4

δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 25′ 10″	12.522	−12.482	−85° 25′ 20″	12.529	−12.489
20	12.529	−12.489	30	12.537	−12.497

$\alpha_{1939.0} = 9^h\ 5^m\ 55^s.84$ $\delta_{1939.0} = -85°\ 25'\ 18''.01$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sd) ι Octantis $5^{m}.38$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in	
	12^h48^m	$-84°47'$	0.01^s	$0.01''$	12^h48^m	$-84°47'$	0.01^s	$0.01''$	12^h48^m	$-84°47'$	0.01^s	$0.01''$	12^h48^m	$-84°47'$	0.01^s	$0.01''$
1	26.99^s	$16.84''$	−4	+10	34.71^s	$21.90''$	+5	+3	39.85^s	$30.31''$	+5	+1	42.53^s	$41.70''$	−1	−7
2	27.26	16.92	−1	+10	34.94	22.15	+5	−2	39.99	30.66	+5	−3	42.56	42.08	−4	−5
3	27.52	17.00	+2	+8	35.15	22.40	+4	−6	40.13	31.01	+3	−6	42.58	42.46	−5	−2
4	27.79	17.09	+5	+4	35.37	22.66	+2	−8	40.26	31.36	0	−7	42.61 42.62	42.83 43.21	−5 −4	+1 +4
5	28.06	17.19	+6	0	35.58	22.92	−1	−8	40.39	31.71	−3	−7	42.64	43.58	−2	+5
6	28.32	17.29	+6	−4	35.79	23.19	−3	−7	40.51	32.06	−5	−5	42.65	43.96	+1	+5
7	28.58	17.39	+4	−8	36.00	23.46	−5	−4	40.63	32.42	−5	−2	42.66	44.33	+4	+4
8	28.84	17.51	+1	−9	36.21	23.73	−5	−1	40.75	32.77	−5	+2	42.66	44.70	+5	+2
9	29.10	17.62	−2	−9	36.41	24.01	−4	+2	40.87	33.13	−3	+4	42.66	45.07	+6	−1
10	29.36	17.75	−4	−6	36.61	24.29	−2	+4	40.98	33.49	0	+5	42.66	45.44	+6	−4
11	29.62	17.88	−5	−3	36.81	24.58	+1	+5	41.09	33.86	+2	+4	42.65	45.81	+5	−6
12	29.88	18.02	−5	+1	37.00	24.87	+3	+4	41.19	34.22	+5	+3	42.64	46.17	+3	−7
13	30.13	18.16	−3	+3	37.19	25.16	+5	+2	41.29	34.59	+6	0	42.63	46.54	+1	−7
14	30.39	18.30	−1	+5	37.38	25.46	+6	−1	41.39	34.95	+6	−2	42.61	46.91	−2	−6
15	30.64	18.46	+2	+5	37.57	25.76	+6	−3	41.48	35.32	+6	−5	42.59	47.27	−4	−4
16	30.89	18.62	+4	+4	37.75	26.07	+5	−5	41.57	35.69	+4	−6	42.57	47.63	−6	−1
17	31.15	18.78	+5	+1	37.93	26.37	+3	−6	41.66	36.06	+2	−7	42.54	47.99	−6	+2
18	31.40	18.95	+6	−1	38.11	26.69	+1	−7	41.74	36.43	0	−6	42.51	48.35	−6	+5
19	31.64	19.13	+6	−3	38.29	27.00	−1	−6	41.82	36.81	−3	−5	42.48	48.71	−4	+8
20	31.89	19.31	+4	−5	38.46	27.32	−4	−4	41.90	37.18	−5	−3	42.44	49.07	−2	+9
21	32.14	19.50	+2	−6	38.63	27.64	−5	−1	41.97	37.55	−6	0	42.40	49.42	+1	+8
22	32.38	19.69	0	−6	38.79	27.97	−6	+2	42.04	37.93	−6	+3	42.35	49.78	+3	+6
23	32.63	19.89	−3	−5	38.96	28.29	−6	+5	42.10	38.31	−5	+7	42.31	50.13	+5	+3
24	32.86	20.09	−5	−3	39.11	28.62	−5	+8	42.17	38.69	−4	+8	42.25	50.48	+5	−1
25	33.10	20.30	−6	0	39.27	28.96	−3	+10	42.22	39.06	−1	+9	42.20	50.82	+4	−5
26	33.34	20.52	−7	+4	39.42	29.29	0	+10	42.28	39.44	+1	+8	42.14	51.17	+2	−7
27	33.57	20.73	−6	+7	39.57	29.63	+2	+8	42.33	39.82	+4	+6	42.08	51.51	0	−7
28	33.80	20.96	−5	+9	39.71	29.97	+4	+5	42.38	40.20	+5	+2	42.01	51.85	−3	−6
29	34.04	21.19	−2	+10	39.85	30.31	+5	+1	42.42	40.57	+5	−2	41.94	52.19	−5	−3
30	34.26	21.42	+1	+9					42.46	40.95	+4	−5	41.87	52.53	−5	0
31	34.49	21.66	+3	+7					42.50	41.32	+1	−7	41.80	52.86	−5	+3
32	34.71	21.90	+5	+3					42.53	41.70	−1	−7				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−84° 47′ 10″	11.004	−10.959	−84° 47′ 30″	11.016	−10.971	−84° 47′ 50″	11.028	−10.982
20	11.010	−10.965	40	11.022	−10.976	60	11.034	−10.988

$\alpha_{1939.0} = 12^h\ 48^m\ 21^s.15$ $\delta_{1939.0} = -84°\ 47'\ 33''.53$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sd) ι Octantis $5^{m}.38$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	$12^h 48^m$	$84° 47'$	$0^s.01$	$0''.01$	$12^h 48^m$	$84° 48'$	$0^s.01$	$0''.01$	$12^h 48^m$	$84° 48'$	$0^s.01$	$0''.01$	$12^h 48^m$	$84° 47'$	$0^s.01$	$0''.01$
1	$41^s.80$	$52''.86$	−5	+3	$38^s.01$	$1''.52$	+4	+4	$32^s.30$	$5''.84$	+6	−3	$25^s.75$	$65''.09$	0	−6
2	41.72	53.19	−3	+5	37.84	1.74	+5	+2	32.09	5.90	+5	−5	25.55	64.97	−2	−5
3	41.64	53.52	0	+6	37.68	1.95	+6	−1	31.88	5.96	+3	−6	25.35	64.85	−4	−2
4	41.56	53.84	+2	+5	37.51	2.16	+6	−3	31.66	6.01	+1	−6	25.15	64.73	−6	+1
5	41.47	54.16	+5	+3	37.34	2.36	+4	−5	31.45	6.05	−1	−6	24.96	64.60	−6	+4
6	41.38	54.48	+6	0	37.17	2.56	+2	−6	31.24	6.09	−3	−4	24.76	64.46	−6	+7
7	41.29	54.80	+6	−2	36.99	2.75	0	−6	31.03	6.12	−5	−1	24.56	64.32	−4	+9
8	41.19	55.11	+6	−5	36.82	2.94	−2	−5	30.81	6.15	−6	+2	24.37	64.18	−2	+10
9	41.09	55.42	+4	−6	36.64	3.13	−4	−3	30.60	6.17	−6	+5	24.18	64.03	+1	+9
10	40.99	55.73	+1	−7	36.46	3.31	−6	0	30.38	6.19	−5	+8	23.99	63.87	+3	+7
11	40.88	56.03	−1	−6	36.28	3.48	−6	+3	30.17	6.20	−3	+10	23.81	63.71	+5	+3
12	40.77	56.33	−3	−4	36.09	3.65	−6	+6	29.95	6.20	0	+10	23.63	63.55	+5	−1
13	40.66	56.63	−5	−2	35.91	3.81	−4	+9	29.74	6.20	+2	+8	23.45	63.38	+4	−5
14	40.55	56.92	−6	+1	35.72	3.97	−2	+9	29.53	6.19	+4	+4	23.27	63.20	+2	−7
15	40.43	57.21	−6	+4	35.53	4.12	+1	+8	29.31	6.18	+5	0	23.09	63.02	−1	−7
16	40.31	57.49	−5	+7	35.34	4.27	+4	+6	29.10	6.16	+5	−4	22.91	62.84	−4	−6
17	40.19	57.78	−3	+9	35.14	4.41	+5	+2	28.89	6.14	+3	−7	22.74	62.65	−5	−3
18	40.06	58.05	0	+9	34.95	4.55	+6	−2	28.67	6.11	+1	−8	22.57	62.45	−5	0
19	39.93	58.33	+2	+7	34.75	4.68	+4	−6	28.46	6.07	−2	−8	22.40	62.25	−4	+3
20	39.80	58.60	+4	+4	34.55	4.80	+2	−8	28.25	6.03	−4	−5	22.24	62.05	−2	+4
21	39.67	58.87	+5	0	34.35	4.92	−1	−8	28.03	5.98	−5	−2	22.07	61.84	+1	+5
22	39.53	59.13	+5	−4	34.15	5.04	−3	−7	27.82	5.93	−5	+1	21.91	61.63	+4	+3
23	39.39	59.39	+3	−7	33.95	5.15	−5	−4	27.61	5.87	−3	+4	21.76	61.41	+6	+1
24	39.24	59.64	+1	−8	33.75	5.25	−5	0	27.40	5.81	0	+5	21.60	61.19	+7	−2
25	39.10	59.89	−2	−7	33.55	5.35	−4	+3	27.19	5.74	+2	+4	21.45	60.96	+6	−4
26	38.95	60.14	−4	−5	33.34	5.45	−2	+5	26.98	5.66	+4	+3	21.30	60.73	+5	−6
27	38.80	60.38	−5	−2	33.13	5.54	0	+5	26.77	5.58	+6	0	21.15	60.50	+3	−7
28	38.65	60.62	−5	+1	32.93	5.62	+3	+4	26.57	5.49	+6	−2	21.01	60.26	0	−7
29	38.49	60.85	−4	+4	32.72	5.70	+5	+2	26.36	5.40	+6	−5	20.87	60.02	−2	−6
30	38.33	61.08	−1	+5	32.51	5.77	+6	0	26.16	5.30	+4	−6	20.73	59.77	−4	−4
31	38.17	61.30	+1	+5	32.30	5.84	+6	−3	25.95	5.20	+2	−7	20.60	59.53	−5	−1
32	38.01	61.52	+4	+4					25.75	5.09	0	−6	20.47	59.27	−6	+2

δ	sec δ	tg δ	δ	sec δ	tg δ
−84° 47′ 50″	11.028	−10.982	−84° 48′ 0″	11.034	−10.988
60	11.034	−10.988	10	11.039	−10.994

$\alpha_{1939.0} = 12^h\ 48^m\ 21^s.15$ $\delta_{1939.0} = -84°\ 47'\ 33''.53$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sd) ι Octantis $5^m.38$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	ℂ Glieder		AR.	Dekl.	ℂ Glieder		AR.	Dekl.	ℂ Glieder		AR.	Dekl.	ℂ Glieder	
		—	in			—	in			—	in			—	in	
	12^h48^m	$84°47'$	$0^s.01$	$0''.01$	12^h48^m	$84°47'$	$0^s.01$	$0''.01$	12^h48^m	$84°47'$	$0^s.01$	$0''.01$	12^h48^m	$84°47'$	$0^s.01$	$0''.01$
1	20.47	59.27	−6	+2	18.35	50.47	−3	+8	20.32	41.12	+5	+3	25.93	35.04	+3	−6
2	20.34	59.02	−6	+5	18.35	50.16	−1	+9	20.46	40.86	+5	−1	26.17	34.92	+1	−7
3	20.22	58.76	−5	+8	18.35	49.84	+2	+8	20.60	40.59	+4	−4	26.40	34.80	−2	−6
4	20.10	58.50	−3	+9	*)18.35	49.52	+4	+6	20.74	40.34	+2	−6	26.64	34.69	−4	−4
5	19.98	58.23	0	+9	18.36	49.21	+5	+2	20.89	40.08	−1	−6	26.88	34.59	−5	−1
6	19.87	57.96	+2	+8	18.37	48.89	+5	−1	21.04	39.83	−3	−5	27.13	34.49	−5	+2
7	19.76	57.69	+4	+5	18.39	48.58	+3	−4	21.20	39.58	−5	−3	27.38	34.40	−4	+5
8	19.66	57.41	+5	+1	18.41	48.26	+1	−6	21.35	39.34	−6	0	27.62	34.31	−1	+6
9	19.56	57.14	+4	−3	18.44	47.95	−2	−6	21.52	39.10	−5	+3	27.87	34.24	+1	+5
10	19.46	56.85	+3	−6	18.47	47.63	−4	−4	21.68	38.86	−3	+5	28.12	34.16	+4	+4
11	19.37	56.57	0	−7	18.51	47.32	−5	−1	21.85	38.63	0	+6	28.37	34.10	+6	+1
12	19.28	56.28	−3	−6	18.55	47.01	−5	+2	22.02	38.40	+3	+5	28.62	34.04	+6	−2
13	19.19	55.99	−5	−4	18.60	46.69	−4	+4	22.20	38.18	+5	+2	28.88	33.98	+6	−5
14	19.11	55.70	−6	−1	18.65	46.38	−2	+5	22.38	37.96	+6	0	29.13	33.93	+4	−7
15	19.03	55.41	−5	+2	18.70	46.08	+1	+5	22.56	37.75	+6	−4	29.38	33.89	+2	−7
16	18.95	55.11	−3	+4	18.76	45.77	+4	+3	22.75	37.54	+5	−6	29.64	33.85	0	−7
17	18.88	54.81	0	+5	18.82	45.46	+6	+1	22.94	37.34	+4	−7	29.90	33.82	−2	−5
18	18.81	54.51	+3	+4	18.89	45.16	+7	−2	23.13	37.14	+1	−8	30.16	33.80	−5	−3
19	18.75	54.20	+5	+2	18.96	44.85	+6	−5	23.33	36.94	−1	−7	30.42	33.78	−6	0
20	18.69	53.90	+6	−1	19.04	44.55	+5	−7	23.53	36.75	−3	−5	30.68	33.77	−6	+4
21	18.64	53.60	+7	−4	19.12	44.25	+3	−8	23.73	36.57	−5	−2	30.95	33.77	−5	+6
22	18.59	53.29	+6	−6	19.21	43.96	0	−7	23.94	36.39	−6	+1	31.21	33.77	−3	+8
23	18.55	52.98	+4	−7	19.30	43.66	−2	−6	24.15	36.22	−6	+5	31.47	33.78	−1	+9
24	18.51	52.67	+2	−8	19.40	43.37	−4	−3	24.36	36.05	−4	+7	31.73	33.80	+1	+8
25	18.47	52.36	−1	−7	19.50	43.08	−5	0	24.58	35.89	−2	+8	32.00	33.82	+4	+5
26	18.44	52.05	−3	−5	19.60	42.79	−6	+3	24.80	35.73	0	+8	32.26	33.85	+5	+2
27	18.41	51.74	−5	−2	19.71	42.50	−5	+5	25.02	35.58	+2	+7	32.52	33.89	+5	−2
28	18.39	51.42	−6	+1	19.82	42.22	−4	+8	25.24	35.43	+4	+4	32.79	33.93	+4	−5
29	18.37	51.11	−6	+4	19.94	41.94	−2	+8	25.47	35.30	+5	0	33.05	33.98	+2	−7
30	18.36	50.79	−5	+6	20.06	41.66	+1	+8	25.70	35.16	+5	−3	33.31	34.03	−1	−7
31	18.35	50.47	−3	+8	20.19	41.39	+3	+6	25.93	35.04	+3	−6	33.58	34.09	−3	−6
32					20.32	41.12	+5	+3					33.85	34.15	−5	−3

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−84° 47′ 30″	11.016	−10.971	−84° 47′ 40″	11.022	−10.976	−84° 47′ 50″	11.028	−10.982
40	11.022	−10.976	50	11.028	−10.982	60	11.034	−10.988

$\alpha_{1939.0} = 12^h\ 48^m\ 21^s.15$ $\delta_{1939.0} = -84°\ 47'\ 33''.53$

*) Tag der doppelten unteren Kulmination: Okt. 4.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Se) Octantis 20 G. $6^m.52$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$14^h 56^m$	87° 53′	$0^s.01$	$0''.01$	$14^h 56^m$	87° 53′	$0^s.01$	$0''.01$	$14^h 56^m$	87° 53′	$0^s.01$	$0''.01$	$14^h 56^m$	87° 54′	$0^s.01$	$0''.01$
1	$3^s.45$	$57''.49$	−15	+ 7	$23^s.90$	$56''.31$	+ 9	+6	$42^s.38$	$59''.82$	+11	+4	$58^s.80$	$7''.69$	+ 2	−8
2	4.06	57.36	− 9	+ 9	24.58	56.36	+13	+2	43.00	60.02	+13	0	59.22	8.00	− 4	−8
3	4.67	57.24	− 1	+ 9	25.27	56.42	+14	−3	43.61	60.22	+11	−4	59.63	8.30	− 9	−6
4	5.29	57.13	+ 7	+ 7	25.95	56.48	+10	−6	44.22	60.43	+ 6	−7	60.04	8.61	−12	−3
5	5.91	57.02	+13	+ 4	26.63	56.55	+ 5	−9	44.82	60.63	0	−8	60.44	8.92	−11	+1
6	6.54	56.92	+15	− 1	27.32	56.63	− 2	−9	45.41	60.85	− 6	−8	60.83	9.24	− 8	+4
7	7.17	56.83	+14	− 5	28.00	56.71	− 7	−7	46.00	61.07	−10	−5	61.21	9.55	− 2	+6
8	7.81	56.74	+ 9	− 8	28.67	56.80	−10	−4	46.59	61.29	−11	−2	61.59	9.87	+ 5	+6
9	8.45	56.65	+ 2	−10	29.35	56.89	−10	0	47.17	61.51	− 9	+2	61.96	10.19	+10	+5
10	9.09	56.57	− 4	− 9	30.03	56.99	− 7	+3	47.74	61.75	− 4	+5	62.32	10.51	+14	+3
11	9.74	56.50	− 9	− 6	30.71	57.09	− 2	+5	48.31	61.98	+ 1	+6	62.67	10.83	+16	+1
12	10.39	56.43	−11	− 3	31.38	57.20	+ 5	+6	48.88	62.22	+ 8	+6	63.01	11.16	+15	−2
13	11.05	56.37	− 9	+ 1	32.05	57.32	+10	+5	49.44	62.46	+12	+4	63.34	11.49	+11	−5
14	11.71	56.32	− 5	+ 4	32.72	57.44	+14	+4	49.99	62.71	+15	+2	63.67	11.81	+ 6	−6
15	12.37	56.27	0	+ 6	33.39	57.56	+15	+1	50.53	62.96	+16	0	63.99	12.14	0	−7
16	13.03	56.22	+ 6	+ 6	34.05	57.69	+15	−1	51.07	63.21	+14	−3	64.29	12.48	− 6	−6
17	13.70	56.18	+11	+ 5	34.71	57.83	+12	−4	51.60	63.47	+ 9	−5	64.59	12.81	−11	−4
18	14.37	56.15	+14	+ 3	35.37	57.97	+ 7	−5	52.13	63.73	+ 4	−6	64.89	13.14	−15	−2
19	15.04	56.12	+14	+ 1	36.03	58.11	+ 1	−6	52.65	63.99	− 2	−7	65.17	13.48	−16	+1
20	15.71	56.10	+13	− 2	36.68	58.26	− 5	−6	53.17	64.26	− 8	−6	65.44	13.81	−15	+5
21	16.39	56.09	+ 9	− 4	37.33	58.42	−10	−5	53.68	64.53	−13	−3	65.71	14.15	−11	+7
22	17.07	56.08	+ 5	− 6	37.97	58.58	−15	−3	54.18	64.80	−16	−1	65.97	14.49	− 5	+8
23	17.75	56.08	− 2	− 6	38.61	58.74	−17	+1	54.68	65.08	−16	+3	66.21	14.83	+ 2	+8
24	18.42	56.08	− 7	− 6	39.25	58.91	−17	+4	55.16	65.36	−14	+6	66.45	15.18	+ 8	+6
25	19.10	56.09	−13	− 4	39.88	59.08	−14	+7	55.64	65.64	− 9	+8	66.68	15.52	+12	+2
26	19.79	56.10	−17	− 1	40.51	59.26	− 8	+9	56.12	65.92	− 3	+9	66.90	15.86	+13	−2
27	20.47	56.12	−18	+ 2	41.14	59.45	− 1	+9	56.58	66.21	+ 4	+8	67.12	16.20	+10	−5
28	21.15	56.15	−17	+ 6	41.76	59.63	+ 6	+7	57.04	66.50	+10	+5	67.32	16.55	+ 5	−7
29	21.84	56.18	−12	+ 9	42.38	59.82	+11	+4	57.49	66.79	+12	+1	67.51	16.89	− 2	−8
30	22.52	56.22	− 5	+10					57.94	67.09	+12	−3	67.69	17.24	− 7	−7
31	23.21	56.26	+ 2	+ 9					58.37	67.39	+ 8	−6	67.87	17.58	−11	−4
32	23.90	56.31	+ 9	+ 6					58.80	67.69	+ 2	−8				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 53′ 50″	27.254	−27.235	−87° 54′ 0″	27.290	−27.271	−87° 54′ 10″	27.326	−27.308
60	27.290	−27.271	10	27.326	−27.308	20	27.362	−27.344

$\alpha_{1939.0} = 14^h\ 56^m\ 8^s.20$ $\delta_{1939.0} = -87°\ 54'\ 15''.44$

Se) Octantis 20 G. $6^m_{\cdot}52$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$14^h 57^m$	$-87° 54'$	in $0^s.01$	in $0''.01$	$14^h 57^m$	$-87° 54'$	in $0^s.01$	in $0''.01$	$14^h 56^m$	$-87° 54'$	in $0^s.01$	in $0''.01$	$14^h 56^m$	$-87° 54'$	in $0^s.01$	in $0''.01$
1	7.87	17.58	−11	−4	8.49	28.36	+5	+6	60.65	36.52	+15	+1	46.12	40.96	+4	−6
2	8.03	17.93	−12	0	8.35	28.68	+10	+5	60.27	36.74	+14	−1	45.58	41.02	−2	−6
3	8.19	18.27	−10	+3	8.21	28.99	+14	+3	59.88	36.95	+11	−4	45.04	41.07	−8	−5
4	8.33	18.62	−5	+5	8.05	29.30	+15	0	59.48	37.16	+7	−5	44.50	41.12	−13	−3
5	8.47	18.96	+1	+6	7.89	29.61	+13	−2	59.08	37.36	+2	−6	43.96	41.16	−16	0
6	8.60	19.31	+7	+6	7.72	29.91	+10	−5	58.67	37.56	−4	−6	43.42	41.20	−17	+3
7	8.72 8.83	19.65 20.00	+12 +15	+4 +2	7.54	30.21	+5	−6	58.25	37.75	−11	−5	42.88	41.23	−16	+6
8	8.93	20.34	+15	−1	7.35	30.51	−1	−7	57.83	37.94	−15	−2	42.33	41.25	−11	+8
9	9.02	20.69	+13	−4	7.15	30.81	−7	−6	57.40	38.13	−18	+1	41.78	41.27	−4	+9
10	9.10	21.03	+8	−6	6.94	31.11	−13	−4	56.96	38.31	−17	+5	41.23	41.28	+2	+9
11	9.17	21.38	+3	−7	6.72	31.40	−16	−1	56.52	38.48	−14	+7	40.67	41.28	+8	+6
12	9.23	21.72	−4	−7	6.50	31.69	−18	+2	56.07	38.65	−8	+9	40.12	41.28	+12	+2
13	9.28	22.06	−10	−5	6.26	31.98	−16	+6	55.62	38.82	−1	+9	39.57	41.28	+12	−2
14	9.33	22.41	−14	−3	6.02	32.26	−11	+8	55.16	38.98	+6	+7	39.02	41.27	+9	−6
15	9.36	22.75	−17	0	5.77	32.54	−4	+9	54.70	39.13	+11	+4	38.47	41.25	+3	−8
16	9.38	23.09	−16	+4	5.51	32.81	+4	+8	54.23	39.28	+13	−1	37.92	41.23	−3	−8
17	9.40	23.43	−13	+6	5.24	33.09	+10	+5	53.75	39.43	+12	−5	37.37	41.20	−9	−6
18	9.40	23.77	−7	+8	4.96	33.35	+14	+1	53.27	39.57	+7	−8	36.82	41.16	−11	−3
19	9.40	24.10	0	+8	4.68	33.62	+14	−3	52.79	39.70	+1	−9	36.27	41.12	−11	0
20	9.39	24.44	+7	+6	4.39	33.88	+10	−6	52.30	39.83	−5	−8	35.72	41.07	−7	+3
21	9.36	24.78	+12	+4	4.08	34.14	+5	−8	51.80	39.95	−9	−5	35.17	41.02	−1	+5
22	9.33	25.11	+14	0	3.77	34.39	−2	−8	51.30	40.07	−11	−2	34.62	40.96	+6	+6
23	9.29	25.44	+13	−4	3.46	34.65	−7	−7	50.80	40.18	−9	+2	34.08	40.90	+11	+5
24	9.24	25.77	+8	−7	3.13	34.89	−10	−4	50.29	40.29	−4	+4	33.53	40.83	+15	+3
25	9.17	26.10	+1	−8	2.80	35.14	−11	0	49.78	40.39	+2	+6	32.99	40.75	+16	0
26	9.10	26.43	−5	−7	2.46	35.38	−8	+3	49.27	40.49	+7	+5	32.45	40.67	+15	−3
27	9.02	26.76	−10	−5	2.12	35.62	−3	+5	48.75	40.58	+12	+4	31.92	40.58	+11	−5
28	8.93	27.08	−12	−2	1.76	35.85	+3	+6	48.23	40.67	+15	+2	31.38	40.49	+6	−6
29	8.84	27.40	−11	+2	1.40	36.08	+8	+5	47.71	40.75	+15	−1	30.85	40.39	+1	−7
30	8.73	27.72	−7	+4	1.03	36.30	+13	+4	47.18	40.83	+13	−3	30.32	40.29	−5	−6
31	8.61	28.04	−1	+6	0.65	36.52	+15	+1	46.65	40.90	+9	−5	29.80	40.18	−11	−4
32	8.49	28.36	+5	+6					46.12	40.96	+4	−6	29.27	40.07	−14	−2

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 54′ 10″	27.326	−27.308	−87° 54′ 20″	27.362	−27.344	−87° 54′ 40″	27.435	−27.417
20	27.362	−27.344	30	27.398	−27.380	50	27.471	−27.453

$\alpha_{1939.0} = 14^h\ 56^m\ 8^s.20$ $\delta_{1939.0} = -87°\ 54'\ 15''.44$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Se) Octantis 20 G. $6^m.52$

Tag	September AR.	September Dekl.	September ℭ Glieder		Oktober AR.	Oktober Dekl.	Oktober ℭ Glieder		November AR.	November Dekl.	November ℭ Glieder		Dezember AR.	Dezember Dekl.	Dezember ℭ Glieder	
	$14^h 56^m$	$-87° 54'$	in $0^s.01$	in $0''.01$	$14^h 56^m$	$-87° 54'$	in $0^s.01$	in $0''.01$	$14^h 56^m$	$-87° 54'$	in $0^s.01$	in $0''.01$	$14^h 56^m$	$-87° 54'$	in $0^s.01$	in $0''.01$
1	$29^s.27$	$40''.07$	−14	−2	$16^s.11$	$34''.23$	−13	+6	$10^s.86$	$24''.91$	+ 8	+6	$16^s.23$	$15''.73$	+11	−4
2	28.76	39.95	−16	+1	15.79	33.96	− 8	+8	10.87	24.58	+11	+3	16.58	15.46	+ 7	−6
3	28.24	39.82	−16	+5	15.48	33.70	− 2	+9	10.89	24.26	+11	−1	16.94	15.20	0	−7
4	27.73	39.69	−13	+7	15.17	33.43	+ 4	+8	10.92	23.94	+ 9	−4	17.31	14.93	− 6	−7
5	27.22	39.55	− 7	+9	14.88	33.16	+ 9	+5	*)10.96	23.62	+ 3	−7	17.69	14.68	−11	−5
6	26.72	39.41	− 1	+9	14.59	32.88	+11	+1	11.02	23.30	− 3	−7	18.08	14.42	−13	−1
7	26.22	39.26	+ 5	+7	14.31	32.60	+10	−2	11.09	22.98	− 9	−6	18.48	14.17	−11	+2
8	25.72	39.11	+10	+4	14.04	32.32	+ 7	−5	11.17	22.66	−12	−3	18.89	13.92	− 7	+5
9	25.23	38.95	+11	0	13.78	32.03	+ 1	−7	11.27	22.34	−13	0	19.31	13.68	− 1	+6
10	24.75	38.78	+ 9	−4	13.53	31.75	− 6	−7	11.37	22.02	−10	+3	19.74	13.44	+ 6	+6
11	24.27	38.61	+ 4	−7	13.30	31.46	−11	−5	11.49	21.70	− 5	+6	20.18	13.20	+11	+5
12	23.80	38.44	− 1	−8	13.07	31.16	−13	−2	11.61	21.38	+ 2	+6	20.63	12.97	+15	+2
13	23.34	38.26	− 7	−7	12.86	30.87	−12	+1	11.75	21.07	+ 8	+6	21.09	12.74	+16	−1
14	22.88	38.07	−11	−4	12.65	30.57	− 7	+4	11.90	20.76	+14	+4	21.55	12.52	+14	−4
15	22.42	37.88	−12	−1	12.46	30.27	− 1	+6	12.07	20.44	+16	+1	22.03	12.30	+10	−6
16	21.97	37.69	− 9	+2	12.27	29.97	+ 6	+6	12.24	20.13	+16	−2	22.51	12.09	+ 5	−7
17	21.53	37.49	− 4	+5	12.10	29.66	+12	+5	12.43	19.82	+13	−5	23.00	11.88	− 1	−7
18	21.09	37.28	+ 3	+6	11.94	29.35	+16	+2	12.62	19.51	+ 8	−6	23.50	11.68	− 8	−6
19	20.66	37.07	+ 9	+5	11.78	29.04	+17	−1	12.83	19.20	+ 3	−7	24.01	11.48	−12	−3
20	20.24	36.86	+14	+3	11.64	28.73	+15	−4	13.05	18.90	− 4	−7	24.52	11.28	−16	0
21	19.83	36.64	+17	+1	11.51	28.42	+11	−6	13.29	18.60	− 9	−5	25.05	11.09	−16	+3
22	19.42	36.42	+16	−2	11.40	28.10	+ 6	−7	13.53	18.30	−13	−2	25.58	10.91	−14	+6
23	19.02	36.19	+14	−4	11.29	27.79	0	−7	13.79	18.00	−16	+1	26.11	10.73	− 9	+8
24	18.63	35.96	+ 9	−6	11.20	27.47	− 6	−6	14.05	17.71	−15	+4	26.66	10.55	− 3	+9
25	18.25	35.72	+ 3	−7	11.11	27.16	−11	−4	14.33	17.42	−12	+6	27.21	10.38	+ 4	+8
26	17.87	35.48	− 3	−7	11.04	26.84	−14	−1	14.62	17.13	− 6	+8	27.77	10.22	+ 9	+5
27	17.50	35.24	− 8	−5	10.98	26.52	−15	+2	14.92	16.84	0	+8	28.34	10.06	+12	+1
28	17.14	34.99	−12	−3	10.93	26.20	−14	+5	15.23	16.56	+ 6	+6	28.91	9.90	+12	−2
29	16.79	34.74	−15	0	10.90	25.87	−10	+7	15.55	16.28	+11	+4	29.48	9.76	+ 9	−6
30	16.45	34.48	−15	+3	10.87	25.55	− 4	+8	15.89	16.00	+12	0	30.07	9.61	+ 3	−8
31	16.11	34.23	−13	+6	10.86	25.23	+ 2	+8	16.23	15.73	+11	−4	30.66	9.48	− 3	−8
32					10.86	24.91	+ 8	+6					31.25	9.35	− 8	−6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 54′ 0″	27.290	−27.271	−87° 54′ 20″	27.362	−27.344	−87° 54′ 40″	27.435	−27.417
10	27.326	−27.308	30	27.398	−27.380	50	27.471	−27.453

$\alpha_{1939.0} = 14^h\ 56^m\ 8^s.20$ $\delta_{1939.0} = -87°\ 54'\ 15''.44$

*) Tag der doppelten unteren Kulmination: Nov. 5.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sf) Octantis 26 G. $6^{m}.13$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	$16^h 37^m$	86° 15′	$0^s.01$	0″.01	$16^h 37^m$	86° 15′	$0^s.01$	0″.01	$16^h 37^m$	86° 15′	$0^s.01$	0″.01	$16^h 38^m$	86° 15′	$0^s.01$	0″.01
1	$34^s.37$	25″.39	−12	+4	$44^s.31$	19″.72	+2	+7	$55^s.29$	18″.67	+4	+6	$7^s.12$	21″.98	+5	−7
2	34.63	25.14	−9	+7	44.68	19.61	+6	+4	55.69	18.71	+7	+2	7.47	22.16	+1	−8
3	34.89	24.90	−5	+8	45.06	19.51	+9	0	56.09	18.75	+8	−2	7.81	22.34	−2	−7
4	35.15	24.65	0	+8	45.44	19.41	+9	−4	56.49	18.80	+7	−5	8.16	22.52	−5	−5
5	35.42	24.42	+5	+6	45.82	19.32	+7	−7	56.89	18.85	+4	−8	8.50	22.71	−6	−2
6	35.70	24.19	+9	+2	46.20	19.23	+3	−9	57.29	18.90	0	−8	8.83	22.90	−6	+2
7	35.98	23.96	+10	−2	46.58	19.15	−1	−8	57.68	18.97	−3	−7	9.17	23.10	−4	+5
8	36.26	23.73	+9	−6	46.96	19.08	−4	−6	58.08	19.03	−5	−4	9.50	23.29	0	+7
9	36.55	23.52	+6	−8	47.35	19.01	−5	−2	58.47	19.10	−6	0	9.83	23.50	+3	+7
10	36.85	23.30	+2	−9	47.74	18.94	−5	+2	58.87	19.18	−5	+3	10.16	23.70	+6	+6
11	37.15	23.09	−2	−7	48.13	18.88	−3	+5	59.26	19.26	−2	+6	10.48	23.91	+8	+4
12	37.46	22.88	−4	−4	48.52	18.83	0	+7	59.65	19.35	+1	+7	10.80	24.12	+9	+1
13	37.77	22.68	−5	−1	48.91	18.78	+3	+7	60.04	19.44	+5	+7	11.11	24.34	+8	−2
14	38.08	22.48	−5	+3	49.31	18.73	+6	+6	60.43	19.54	+7	+5	11.43	24.56	+6	−5
15	38.40	22.29	−2	+6	49.70	18.69	+8	+4	60.82	19.63	+9	+3	11.73	24.78	+3	−6
16	38.72	22.10	0	+7	50.10	18.66	+8	+2	61.21	19.74	+9	0	12.04	25.01	0	−7
17	39.05	21.92	+3	+7	50.49	18.63	+8	−1	61.59	19.85	+7	−3	12.34	25.24	−4	−7
18	39.37	21.74	+6	+6	50.89	18.60	+6	−4	61.98	19.96	+5	−5	12.64	25.48	−7	−5
19	39.71	21.56	+7	+4	51.29	18.58	+4	−6	62.36	20.07	+2	−7	12.93	25.71	−10	−2
20	40.04	21.39	+8	+1	51.69	18.57	0	−7	62.74	20.20	−2	−7	13.22	25.96	−10	+1
21	40.38	21.22	+7	−2	52.09	18.56	−3	−7	63.11	20.32	−5	−6	13.51	26.20	−9	+4
22	40.72	21.06	+5	−4	52.49	18.56	−7	−6	63.49	20.45	−8	−4	13.79	26.45	−6	+7
23	41.07	20.90	+2	−6	52.89	18.56	−10	−3	63.87	20.58	−10	−1	14.07	26.69	−2	+8
24	41.42	20.75	−1	−7	53.29	18.56	−11	0	64.24	20.72	−10	+2	14.34	26.95	+2	+7
25	41.77	20.60	−5	−6	53.69	18.58	−10	+4	64.61	20.86	−9	+6	14.61	27.20	+6	+5
26	42.13	20.46	−9	−5	54.09	18.59	−8	+7	64.97	21.01	−6	+8	14.88	27.46	+8	+1
27	42.48	20.32	−11	−1	54.49	18.61	−5	+8	65.34	21.16	−1	+8	15.14	27.72	+8	−3
28	42.84	20.19	−12	+2	54.89	18.64	0	+8	65.70	21.32	+3	+7	15.40	27.98	+6	−6
29	43.21	20.07	−10	+6	55.29	18.67	+4	+6	66.06	21.48	+6	+4	15.65	28.24	+3	−8
30	43.57	19.95	−7	+8					66.42	21.64	+8	0	15.90	28.51	−1	−8
31	43.94	19.83	−3	+9					66.77	21.81	+7	−4	16.14	28.78	−4	−6
32	44.31	19.72	+2	+7					67.12	21.98	+5	−7				

δ	sec δ	tg δ	δ	sec δ	tg δ
−86° 15′ 10″	15.301	−15.268	−86° 15′ 20″	15.312	−15.280
20	15.312	−15.280	30	15.324	−15.291

$\alpha_{1939.0} = 16^h\ 37^m\ 44^s.27$ $\delta_{1939.0} = -86°\ 15'\ 40''.27$

δ Octantis 26 G. $6^{\mathrm{m}}_{.}13$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$16^{\mathrm{h}}\,38^{\mathrm{m}}$	$-86°\,15'$	in $0.^{\mathrm{s}}01$	in $0.''01$	$16^{\mathrm{h}}\,38^{\mathrm{m}}$	$-86°\,15'$	in $0.^{\mathrm{s}}01$	in $0.''01$	$16^{\mathrm{h}}\,38^{\mathrm{m}}$	$-86°\,15'$	in $0.^{\mathrm{s}}01$	in $0.''01$	$16^{\mathrm{h}}\,38^{\mathrm{m}}$	$-86°\,15'$	in $0.^{\mathrm{s}}01$	in $0.''01$
1	$16.^{\mathrm{s}}14$	$28.''78$	−4	−6	$21.^{\mathrm{s}}27$	$37.''99$	−3	+6	$21.^{\mathrm{s}}16$	$47.''43$	+8	+4	$15.^{\mathrm{s}}94$	$54.''75$	+5	−5
2	16.38	29.05	−6	−3	21.35 21.42	38.31 38.62	0 +3	+7 +7	21.07	47.72	+8	+2	15.70	54.93	+2	−6
3	16.62	29.33	−7	+1	21.49	38.94	+6	+6	20.97	48.00	+8	−1	15.46	55.10	−2	−7
4	16.85	29.60	−5	+4	21.56	39.25	+8	+3	20.86	48.27	+6	−4	15.21	55.27	−5	−6
5	17.07	29.88	−2	+6	21.62	39.56	+8	+1	20.76	48.55	+4	−6	14.96	55.43	−9	−4
6	17.29	30.16	+1	+7	21.67	39.87	+8	−2	20.64	48.82	0	−6	14.71	55.59	−11	−1
7	17.51	30.44	+4	+7	21.72	40.19	+5	−5	20.52	49.09	−4	−7	14.45	55.74	−11	+2
8	17.72	30.73	+7	+5	21.76	40.50	+2	−6	20.40	49.36	−7	−5	14.19	55.89	−10	+6
9	17.92	31.01	+8	+3	21.79	40.81	−1	−7	20.27	49.62	−10	−3	13.93	56.03	−7	+8
10	18.12	31.30	+8	−1	21.82	41.12	−5	−6	20.13	49.88	−11	0	13.66	56.17	−3	+8
11	18.32	31.59	+7	−4	21.85	41.44	−8	−4	19.99	50.14	−11	+4	13.39	56.30	+2	+7
12	18.51	31.88	+4	−6	21.87	41.75	−11	−2	19.85	50.40	−9	+7	13.11	56.43	+6	+4
13	18.70	32.18	+1	−7	21.88	42.06	−11	+2	19.70	50.65	−5	+8	12.84	56.55	+7	0
14	18.88	32.48	−3	−7	21.89	42.37	−10	+5	19.54	50.90	0	+8	12.56	56.67	+8	−4
15	19.06	32.77	−6	−6	21.89	42.68	−6	+7	19.38	51.14	+5	+6	12.28	56.78	+5	−7
16	19.23	33.07	−9	−3	21.89	42.98	−2	+8	19.22	51.39	+8	+2	12.00	56.88	+2	−8
17	19.40	33.37	−10	0	21.88	43.29	+3	+7	19.05	51.62	+9	−2	11.71	56.98	−2	−8
18	19.56	33.67	−10	+3	21.86	43.60	+7	+4	18.87	51.86	+8	−6	11.42	57.08	−4	−5
19	19.71	33.97	−8	+6	21.84	43.90	+9	0	18.69	52.09	+5	−8	11.13	57.17	−6	−2
20	19.86	34.28	−4	+8	21.82	44.20	+9	−4	18.50	52.32	+1	−8	10.84	57.26	−5	+2
21	20.01	34.58	+1	+7	21.79	44.51	+6	−7	18.31	52.55	−3	−7	10.54	57.34	−3	+5
22	20.15	34.89	+5	+6	21.75	44.81	+3	−8	18.12	52.77	−5	−4	10.24	57.41	0	+7
23	20.28	35.19	+8	+2	21.71	45.11	−1	−8	17.92	52.99	−6	0	9.94	57.48	+4	+7
24	20.41	35.50	+9	−1	21.66	45.40	−4	−6	17.72	53.20	−5	+3	9.64	57.55	+7	+6
25	20.54	35.81	+8	−5	21.60	45.70	−6	−2	17.51	53.41	−2	+6	9.34	57.60	+9	+3
26	20.66	36.12	+5	−7	21.54	45.99	−6	+1	17.30	53.61	+1	+7	9.04	57.66	+9	+1
27	20.77	36.43	+1	−8	21.48	46.28	−4	+4	17.08	53.81	+5	+7	8.73	57.70	+8	−2
28	20.88	36.74	−3	−7	21.41	46.57	−1	+7	16.86	54.01	+7	+5	8.42	57.74	+6	−5
29	20.99	37.05	−5	−4	21.33	46.86	+2	+7	16.64	54.20	+8	+2	8.11	57.77	+3	−6
30	21.09	37.37	−6	−1	21.25	47.15	+5	+6	16.41	54.39	+8	0	7.80	57.80	0	−6
31	21.18	37.68	−6	+3	21.16	47.43	+8	+4	16.18	54.57	+7	−3	7.49	57.83	−4	−6
32	21.27	37.99	−3	+6					15.94	54.75	+5	−5	7.18	57.84	−7	−5

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
$-86°\ 15'\ 20''$	15.312	−15.280	$-86°\ 15'\ 30''$	15.324	−15.291	$-86°\ 15'\ 50''$	15.347	−15.314
30	15.324	−15.291	40	15.335	−15.303	60	15.358	−15.325

$\alpha_{1939.0} = 16^{\mathrm{h}}\ 37^{\mathrm{m}}\ 44.^{\mathrm{s}}27$ $\qquad$ $\delta_{1939.0} = -86°\ 15'\ 40.''27$

Obere Kulmination Greenwich

Sf) Octantis 26 G. $6^m.13$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$16^h 37^m$	—86° 15′	in $0^s.01$	in $0''.01$	$16^h 37^m$	—86° 15′	in $0^s.01$	in $0''.01$	$16^h 37^m$	—86° 15′	in $0^s.01$	in $0''.01$	$16^h 37^m$	—86° 15′	in $0^s.01$	in $0''.01$
1	$67^s.18$	$57''.84$	− 7	−5	$58^s.05$	$55''.65$	−10	+3	$51^s.36$	$48''.56$	+ 2	+7	*)$50^s.14$	$39''.20$	+ 7	−1
2	66.86	57.85	−10	−2	57.77	55.49	− 8	+6	51.23	48.28	+ 5	+5	50.20	38.88	+ 6	−5
3	66.55	57.86	−11	+1	57.50	55.33	− 5	+8	51.10	47.99	+ 7	+1	50.27	38.56	+ 4	−7
4	66.24	57.86	−10	+4	57.23	55.16	− 2	+8	50.98	47.69	+ 7	−2	50.35	38.24	0	−8
5	65.93	57.85	− 8	+7	56.96	54.98	+ 2	+7	50.86	47.40	+ 5	−5	50.43	37.92	− 4	−6
6	65.61	57.84	− 4	+8	56.69	54.80	+ 5	+4	50.75	47.10	+ 2	−7	50.52	37.60	− 6	−4
7	65.30	57.82	0	+8	56.43	54.62	+ 6	0	50.65	46.80	− 2	−7	50.61	37.28	− 7	0
8	64.99	57.80	+ 4	+6	56.17	54.43	+ 6	−4	50.55	46.50	− 5	−5	50.72	36.97	− 6	+3
9	64.67	57.77	+ 6	+2	55.92	54.23	+ 4	−6	50.46	46.19	− 7	−2	50.82	36.66	− 3	+6
10	64.36	57.73	+ 7	−2	55.67	54.03	0	−8	50.37	45.88	− 7	+1	50.94	36.35	0	+7
11	64.05	57.69	+ 6	−5	55.42	53.82	− 3	−7	50.30	45.57	− 5	+4	51.06	36.04	+ 4	+7
12	63.74	57.64	+ 3	−8	55.18	53.61	− 6	−4	50.23	45.26	− 2	+7	51.19	35.73	+ 7	+5
13	63.42	57.59	− 1	−8	54.94	53.40	− 7	−1	50.16	44.95	+ 2	+7	51.32	35.42	+ 9	+2
14	63.11	57.53	− 4	−6	54.71	53.18	− 6	+3	50.10	44.64	+ 6	+6	51.47	35.12	+ 9	0
15	62.80	57.47	− 6	−3	54.48	52.96	− 3	+5	50.05	44.32	+ 8	+4	51.61	34.82	+ 8	−3
16	62.49	57.40	− 6	0	54.26	52.73	0	+7	50.01	44.00	+ 9	+1	51.77	34.52	+ 6	−5
17	62.18	57.32	− 4	+4	54.04	52.50	+ 4	+7	49.97	43.68	+ 9	−2	51.93	34.22	+ 2	−7
18	61.87	57.24	− 1	+6	53.83	52.26	+ 7	+5	49.94	43.36	+ 7	−4	52.10	33.93	− 1	−7
19	61.56	57.15	+ 2	+7	53.62	52.02	+ 9	+3	49.92	43.04	+ 5	−6	52.27	33.64	− 5	−6
20	61.26	57.06	+ 6	+6	53.41	51.77	+10	0	49.90	42.72	+ 1	−7	52.45	33.35	− 8	−4
21	60.96	56.96	+ 9	+4	53.21	51.53	+ 9	−3	49.89	42.40	− 3	−7	52.64	33.06	−10	−1
22	60.66	56.85	+10	+2	53.02	51.27	+ 6	−5	49.88	42.08	− 6	−5	52.83	32.78	−10	+3
23	60.36	56.74	+ 9	−1	52.83	51.02	+ 3	−7	49.88	41.76	− 9	−3	53.02	32.50	− 9	+6
24	60.06	56.63	+ 8	−4	52.64	50.76	0	−7	49.89	41.44	−10	0	53.23	32.22	− 6	+7
25	59.76	56.50	+ 5	−6	52.46	50.50	− 4	−6	49.91	41.12	− 9	+4	53.44	31.94	− 1	+8
26	59.47	56.37	+ 2	−7	52.29	50.23	− 7	−4	49.93	40.80	− 7	+6	53.65	31.67	+ 3	+7
27	59.18	56.24	− 2	−7	52.12	49.96	− 9	−2	49.96	40.48	− 4	+8	53.87	31.40	+ 6	+4
28	58.89	56.10	− 5	−5	51.96	49.69	− 9	+2	49.99	40.16	0	+7	54.10	31.14	+ 8	0
29	58.61	55.96	− 8	−3	51.80	49.41	− 8	+5	50.04	39.84	+ 4	+6	54.33	30.88	+ 7	−4
30	58.33	55.81	−10	0	51.65	49.13	− 6	+7	50.09	39.52	+ 7	+2	54.57	30.62	+ 5	−6
31	58.05	55.65	−10	+3	51.50	48.85	− 2	+8	50.14	39.20	+ 7	−1	54.81	30.37	+ 2	−8
32					51.36	48.56	+ 2	+7					55.06	30.12	− 2	−7

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−86° 15′ 30″	15.324	−15.291	−86° 15′ 40″	15.335	−15.303	−86° 15′ 50″	15.347	−15.314
40	15.335	−15.303	50	15.347	−15.314	60	15.358	−15.325

$\alpha_{1939.0} = 16^h\ 37^m\ 44^s.27$ $\delta_{1939.0} = -86°\ 15'\ 40''.27$

*) Tag der doppelten unteren Kulmination: Dez. 1.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sg) χ Octantis $5^{m}.22$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	$18^{h}18^{m}$	87° 39′	$0^{s}.01$	$0''.01$	$18^{h}19^{m}$	87° 39′	$0^{s}.01$	$0''.01$	$18^{h}19^{m}$	87° 39′	$0^{s}.01$	$0''.01$	$18^{h}19^{m}$	87° 39′	$0^{s}.01$	$0''.01$
1	51.63	21.13	−19	−1	1.72	11.90	−1	+8	16.63	6.41	+2	+7	35.89	4.53	+11	−5
2	51.82	20.80	−17	+3	2.17	11.65	+6	+6	17.23	6.28	+9	+5	36.52	4.54	+7	−7
3	52.02	20.47	−12	+6	2.64	11.40	+12	+3	17.83	6.15	+12	+1	37.14	4.56	+1	−8
4	52.23	20.14	−4	+8	3.11	11.16	+15	−1	18.44	6.03	+13	−3	37.76	4.59	−4	−6
5	52.45	19.82	+3	+8	3.58	10.92	+14	−5	19.04	5.91	+11	−6	38.38	4.62	−8	−3
6	52.68	19.49	+11	+5	4.06	10.68	+10	−7	19.65	5.79	+6	−8	39.00	4.65	−10	0
7	52.91	19.17	+15	+1	4.55	10.45	+4	−8	20.26	5.68	0	−7	39.62	4.69	−8	+4
8	53.16	18.85	+16	−3	5.05	10.22	−2	−7	20.87	5.58	−5	−5	40.24	4.74	−5	+7
9	53.41	18.53	+14	−6	5.55	9.99	−6	−4	21.49	5.48	−8	−2	40.85	4.79	0	+8
10	53.68	18.21	+8	−8	6.06	9.77	−8	0	22.10	5.38	−9	+2	41.46	4.84	+5	+8
11	53.95	17.90	+2	−8	6.57	9.55	−8	+3	22.72	5.29	−6	+5	42.07	4.90	+9	+7
12	54.23	17.59	−4	−6	7.09	9.34	−5	+6	23.34	5.21	−2	+7	42.68	4.96	+12	+4
13	54.53	17.27	−7	−2	7.61	9.13	0	+8	23.96	5.13	+2	+8	43.28	5.03	+13	+1
14	54.83	16.97	−8	+1	8.14	8.93	+4	+8	24.58	5.05	+7	+7	43.88	5.11	+12	−2
15	55.14	16.66	−7	+4	8.68	8.73	+8	+7	25.21	4.98	+10	+6	44.48	5.18	+9	−5
16	55.46	16.36	−4	+7	9.21	8.54	+11	+5	25.83	4.92	+12	+3	45.08	5.27	+4	−7
17	55.78	16.06	0	+8	9.76	8.35	+12	+2	26.46	4.86	+12	0	45.67	5.35	−2	−8
18	56.12	15.76	+5	+7	10.31	8.16	+11	−1	27.08	4.80	+10	−3	46.26	5.44	−7	−7
19	56.47	15.46	+8	+6	10.86	7.98	+9	−4	27.71	4.75	+7	−6	46.85	5.54	−12	−5
20	56.83	15.17	+10	+3	11.42	7.80	+5	−6	28.34	4.71	+2	−7	47.44	5.64	−15	−2
21	57.19	14.88	+11	+1	11.99	7.63	−1	−8	28.97	4.67	−4	−8	48.02	5.74	−16	+1
22	57.56	14.59	+10	−2	12.55	7.46	−7	−8	29.60	4.63	−9	−7	48.60	5.85	−13	+4
23	57.95	14.31	+7	−5	13.13	7.30	−12	−6	30.23	4.60	−14	−4	49.17	5.96	−8	+7
24	58.34	14.02	+2	−7	13.70	7.14	−16	−3	30.86	4.57	−16	−1	49.74	6.08	−2	+7
25	58.73	13.75	−4	−8	14.28	6.99	−18	0	31.49	4.55	−16	+2	50.31	6.20	+5	+6
26	59.14	13.47	−10	−7	14.86	6.84	−16	+3	32.12	4.53	−12	+5	50.87	6.32	+10	+4
27	59.55	13.20	−15	−5	15.45	6.69	−12	+7	32.75	4.52	−7	+7	51.43	6.45	+13	0
28	59.97	12.93	−18	−2	16.04	6.55	−5	+8	33.38	4.51	0	+8	51.98	6.58	+12	−3
29	60.39	12.67	−18	+1	16.63	6.41	+2	+7	34.01	4.51	+6	+6	52.53	6.72	+9	−6
30	60.83	12.41	−15	+5					34.63	4.51	+11	+3	53.07	6.86	+3	−8
31	61.27	12.15	−9	+7					35.26	4.52	+13	−1	53.61	7.01	−2	−7
32	61.72	11.90	−1	+8					35.89	4.53	+11	−5				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 39′ 0″	24.388	−24.368	−87° 39′ 10″	24.417	−24.396	−87° 39′ 20″	24.446	−24.425
10	24.417	−24.396	20	24.446	−24.425	30	24.475	−24.454

$\alpha_{1939.0} = 18^{h}\ 19^{m}\ 16^{s}.70$ $\delta_{1939.0} = -87°\ 39'\ 30''.17$

Sg) χ Octantis $5^m.22$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$18^h 19^m$	87° 39′	$0^s.01$	0″.01	$18^h 20^m$	87° 39′	$0^s.01$	0″.01	$18^h 20^m$	87° 39′	$0^s.01$	0″.01	$18^h 20^m$	87° 39′	$0^s.01$	0″.01
1	$53^s.61$	7″.01	−2	−7	$7^s.46$	13″.39	−8	+4	$13^s.96$	22″.17	+7	+7	$11^s.64$	31.18	+10	−3
2	54.14	7.16	−7	−5	7.79	13.64	−5	+7	14.02	22.48	+10	+5	11.41	31.44	+6	−5
3	54.67	7.31	−10	−2	8.12	13.90	0	+8	14.08	22.78	+12	+2	11.18	31.70	+1	−7
4	55.20	7.47	−10	+2	8.45	14.16	+5	+8	14.12	23.08	+11	−1	10.95	31.96	−4	−7
5	55.72	7.63	−7	+5	8.76	14.43	+9	+6	14.16	23.38	+9	−4	10.70	32.22	−10	−7
6	56.23	7.80	−3	+7	9.06	14.69	+11	+3	14.19	23.68	+4	−6	10.44	32.47	−15	−5
7	56.74	7.97	+2	+8	9.36	14.96	+12	+1	14.21	23.98	−1	−8	10.18	32.72	−18	−2
8	57.25	8.14	+7	+7	9.65	15.23	+11	−2	14.22	24.28	−7	−7	9.91	32.97	−18	+2
9	57.75	8.32	+10	+5	9.93	15.50	+7	−5	14.22	24.58	−13	−6	9.63	33.21	−15	+5
10	58.24	8.50	+12	+2	10.20	15.77	+2	−7	14.21	24.88	−17	−3	9.34	33.46	−9	+7
11	58.73	8.69	+12	−1	10.46	16.05	−3	−8	14.19	25.18	−18	0	9.04	33.69	−2	+7
12	59.21	8.88	+10	−4	10.72	16.32	−9	−7	14.16	25.48	−16	+3	8.74	33.93	+5	+6
13	59.69	9.07	+6	−6	10.96	16.60	−14	−5	14.12	25.78	−11	+6	8.42	34.16	+10	+3
14	60.16	9.27	+1	−8	11.20	16.88	−17	−2	14.07	26.07	−5	+7	8.10	34.39	+13	−1
15	60.62	9.47	−5	−8	11.43	17.17	−17	+2	14.02	26.37	+3	+7	7.78	34.61	+12	−5
16	61.08	9.68	−11	−7	11.65	17.45	−13	+5	13.95	26.66	+9	+5	7.44	34.83	+8	−7
17	61.53	9.88	−15	−4	11.86	17.74	−7	+7	13.88	26.96	+13	+1	7.10	35.05	+3	−8
18	61.97	10.10	−16	0	12.07	18.03	0	+8	13.79	27.25	+14	−3	6.75	35.26	−3	−6
19	62.41	10.31	−15	+3	12.26	18.32	+7	+6	13.70	27.54	+12	−6	6.39	35.47	−7	−4
20	62.84	10.53	−10	+6	12.45	18.61	+12	+3	13.60	27.83	+7	−7	6.03	35.67	−8	0
21	63.26	10.75	−4	+7	12.63	18.90	+15	−1	13.48	28.12	+1	−7	5.66	35.87	−7	+4
22	63.68	10.98	+3	+7	12.79	19.19	+14	−4	13.36	28.41	−5	−5	5.29	36.07	−3	+7
23	64.09	11.20	+9	+5	12.95	19.49	+10	−7	13.23	28.69	−8	−2	4.90	36.26	+2	+8
24	64.49	11.44	+13	+2	13.10	19.78	+4	−8	13.09	28.98	−8	+2	4.51	36.45	+6	+8
25	64.89	11.67	+14	−2	13.24	20.08	−2	−7	12.94	29.26	−6	+5	4.12	36.63	+10	+6
26	65.28	11.91	+11	−5	13.37	20.37	−7	−4	12.78	29.54	−2	+7	3.72	36.81	+13	+4
27	65.66	12.15	+6	−7	{13.49 {13.60	20.67 20.97	−9 −9	−1} +3}	12.61	29.82	+2	+8	3.31	36.98	+13	+1
28	66.03	12.39	0	−7	13.71	21.27	−6	+6	12.44	30.10	+7	+7	2.89	37.15	+12	−2
29	66.40	12.63	−5	−6	13.80	21.57	−1	+7	12.25	30.37	+10	+5	2.47	37.31	+9	−5
30	66.76	12.88	−9	−3	13.88	21.87	+3	+8	12.05	30.64	+12	+3	2.04	37.47	+4	−6
31	67.11	13.13	−10	0	13.96	22.17	+7	+7	11.85	30.91	+12	0	1.61	37.63	−1	−7
32	67.46	13.39	−8	+4					11.64	31.18	+10	−3	1.18	37.78	−7	−7

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 39′ 0″	24.388	−24.368	−87° 39′ 10″	24.417	−24.396	−87° 39′ 30″	24.475	−24.454
10	24.417	−24.396	20	24.446	−24.425	40	24.504	−24.483

$\alpha_{1939.0} = 18^h\ 19^m\ 16^s.70$ $\delta_{1939.0} = -87°\ 39'\ 30''.17$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sg) χ Octantis $5^m.22$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
	$18^h\,19^m$	$-87°\,39'$	in $0^s.01$	in $0''.01$	$18^h\,19^m$	$-87°\,39'$	in $0^s.01$	in $0''.01$	$18^h\,19^m$	$-87°\,39'$	in $0^s.01$	in $0''.01$	$18^h\,19^m$	$-87°\,39'$	in $0^s.01$	in $0''.01$
1	61.18	37.78	−7	−7	46.44	39.71	−16	−1	31.66	36.14	−2	+7	23.07	28.21	+11	+1
2	60.74	37.92	−12	−5	45.93	39.68	−15	+3	31.26	35.94	+4	+6	22.92	27.89	+12	−2
3	60.29	38.06	−16	−3	45.41	39.65	−12	+5	30.86	35.73	+9	+3	22.79	27.58	+10	−5
4	59.84	38.20	−17	0	44.90	39.61	−7	+7	30.47	35.51	+11	0	22.67	27.26	+5	−7
5	59.39	38.33	−16	+4	44.39	39.57	−1	+7	30.09	35.29	+10	−4	22.55	26.94	−1	−7
6	58.93	38.45	−11	+6	43.87	39.52	+5	+5	29.71	35.07	+7	−6	22.45	26.62	−6	−6
7	58.46	38.57	−5	+7	43.36	39.46	+9	+2	29.34	34.84	+2	−7	22.36	26.30	−10	−3
8	57.99	38.68	+2	+7	42.85	39.40	+11	−1	28.98	34.61	−4	−7	22.27	25.97	−10	+1
9	57.52	38.79	+7	+4	42.34	39.33	+9	−5	28.62	34.37	−8	−5	22.20	25.64	−8	+4
10	57.04	38.90	+11	+1	41.84	39.25	+5	−7	28.28	34.13	−11	−1	22.14	25.32	−4	+7
11	56.56	38.99	+11	−3	41.34	39.17	0	−8	27.94	33.89	−10	+2	22.09	24.99	+1	+8
12	56.07	39.08	+9	−6	40.84	39.08	−6	−6	27.61	33.64	−7	+6	22.05	24.66	+6	+7
13	55.59	39.17	+4	−8	40.34	38.99	−9	−3	27.29	33.39	−2	+7	22.02	24.33	+11	+5
14	55.09	39.25	−2	−8	39.85	38.89	−10	0	26.98	33.13	+4	+8	22.00	24.00	+13	+3
15	54.60	39.32	−6	−5	39.35	38.79	−8	+4	26.68	32.87	+9	+7	22.00	23.66	+13	0
16	54.10	39.39	−9	−2	38.87	38.68	−4	+7	26.38	32.60	+13	+4	22.00	23.33	+11	−3
17	53.60	39.45	−9	+2	38.38	38.56	+2	+8	26.09	32.33	+14	+2	22.01	22.99	+7	−5
18	53.09	39.51	−6	+6	37.90	38.44	+7	+8	25.82	32.06	+13	−1	22.04	22.66	+2	−7
19	52.59	39.56	−1	+7	37.42	38.31	+12	+6	25.55	31.78	+10	−4	22.07	22.32	−4	−7
20	52.08	39.60	+5	+8	36.95	38.18	+14	+3	25.29	31.50	+6	−6	22.12	21.99	−9	−6
21	51.57	39.64	+9	+7	36.48	38.04	+14	0	25.04	31.22	0	−7	22.17	21.66	−14	−4
22	51.06	39.68	+13	+5	36.02	37.89	+12	−3	24.80	30.93	−6	−7	22.24	21.32	−16	−1
23	50.55	39.71	+14	+2	35.56	37.74	+9	−5	24.57	30.64	−11	−6	22.31	20.99	−16	+2
24	50.04	39.73	+13	−1	35.10	37.59	+3	−7	24.35	30.35	−14	−3	22.40	20.66	−13	+5
25	49.53	39.75	+11	−4	34.65	37.42	−2	−7	24.13	30.05	−15	0	22.50	20.32	−7	+7
26	49.01	39.76	+6	−6	34.20	37.25	−7	−6	23.93	29.75	−14	+3	22.61	19.99	0	+7
27	48.50	39.76	+1	−7	33.76	37.08	−12	−5	23.74	29.45	−10	+6	*)22.73	19.66	+6	+6
28	47.98	39.76	−4	−7	33.33	36.90	−15	−2	23.55	29.14	−4	+7	22.86	19.32	+11	+3
29	47.47	39.75	−9	−6	32.90	36.72	−15	+1	23.38	28.83	+2	+7	23.00	18.99	+13	−1
30	46.95	39.73	−13	−4	32.48	36.53	−13	+4	23.22	28.52	+8	+5	23.15	18.66	+12	−4
31	46.44	39.71	−16	−1	32.07	36.34	−8	+6	23.07	28.21	+11	+1	23.31	18.33	+8	−7
32					31.66	36.14	−2	+7					23.48	18.00	+2	−8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 39′ 10″	24.417	−24.396	−87° 39′ 20″	24.446	−24.425	−87° 39′ 30″	24.475	−24.454
20	24.446	−24.425	30	24.475	−24.454	40	24.504	−24.483

$\alpha_{1939.0} = 18^h\ 19^m\ 16^s.70$ $\delta_{1939.0} = -87°\ 39'\ 30''.17$

*) Tag der doppelten unteren Kulmination: Dez. 27.

Sh) σ Octantis $5^{m}.48$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	$19^{h}58^{m}$	89° 10′	$0^{s}.01$	$0''.01$	$19^{h}59^{m}$	89° 9′	$0^{s}.01$	$0''.01$	$19^{h}59^{m}$	89° 9′	$0^{s}.01$	$0''.01$	$20^{h}0^{m}$	89° 9′	$0^{s}.01$	$0''.01$
1	$57^{s}.84$	$13''.23$	−45	−5	$4^{s}.95$	$62''.21$	−17	+7	$31^{s}.93$	$53''.35$	−8	+7	$17^{s}.00$	$46''.65$	+36	−2
2	57.65	12.88	−48	−1	5.61	61.86	+4	+7	33.18	53.08	+13	+6	18.61	46.50	+31	−5
3	57.49	12.53	−41	+3	6.29	61.52	+24	+6	34.45	52.81	+29	+4	20.23	46.36	+17	−7
4	57.36	12.17	−25	+6	7.00	61.17	+38	+3	35.73	52.54	+38	0	21.85	46.22	+1	−7
5	57.26	11.82	−5	+8	7.73	60.83	+41	−1	37.03	52.28	+38	−3	23.48	46.09	−14	−5
6	57.18	11.47	+17	+7	8.49	60.49	+38	−4	38.35	52.02	+28	−6	25.12	45.96	−24	−2
7	57.13	11.11	+35	+5	9.27	60.15	+25	−6	39.68	51.76	+13	−7	26.76	45.84	−28	+2
8	57.12	10.76	+45	+1	10.07	59.82	+8	−6	41.03	51.51	−3	−6	28.40	45.72	−25	+5
9	57.13	10.40	+44	−2	10.90	59.48	−8	−5	42.39	51.26	−17	−4	30.05	45.61	−16	+7
10	57.16	10.05	+34	−5	11.75	59.15	−20	−2	43.77	51.01	−25	0	31.70	45.50	−3	+8
11	57.23	9.69	+19	−6	12.62	58.82	−25	+2	45.16	50.77	−25	+3	33.36	45.39	+10	+8
12	57.32	9.33	+1	−6	13.52	58.50	−24	+5	46.56	50.53	−20	+6	35.02	45.29	+21	+6
13	57.44	8.97	−14	−4	14.43	58.17	−16	+7	47.98	50.30	−9	+8	36.68	45.20	+29	+4
14	57.59	8.61	−23	−1	15.37	57.85	−5	+8	49.40	50.07	+3	+8	38.35	45.11	+32	+1
15	57.77	8.25	−26	+3	16.33	57.53	+7	+8	50.84	49.84	+15	+8	40.01	45.03	+30	−2
16	57.97	7.89	−22	+5	17.32	57.21	+18	+6	52.30	49.62	+25	+6	41.68	44.95	+23	−5
17	58.20	7.53	−14	+7	18.32	56.90	+26	+4	53.76	49.40	+31	+3	43.35	44.88	+10	−7
18	58.46	7.17	−2	+8	19.35	56.59	+30	+1	55.24	49.19	+31	0	45.02	44.81	−4	−8
19	58.75	6.82	+9	+7	20.39	56.28	+29	−2	56.73	48.98	+27	−4	46.69	44.74	−19	−8
20	59.07	6.46	+19	+5	21.46	55.97	+23	−5	58.23	48.77	+18	−6	48.36	44.68	−32	−6
21	*)59.41	6.10	+26	+3	22.55	55.66	+13	−7	59.74	48.57	+5	−8	50.03	44.62	−40	−3
22	59.78	5.74	+29	0	23.65	55.36	−1	−9	61.27	48.37	−10	−8	51.70	44.57	−40	+1
23	60.18	5.39	+27	−3	24.78	55.06	−18	−8	62.80	48.18	−26	−7	53.37	44.53	−32	+4
24	60.61	5.03	+19	−6	25.92	54.77	−33	−7	64.34	47.99	−37	−5	55.03	44.49	−18	+6
25	61.06	4.68	+6	−8	27.09	54.48	−43	−4	65.90	47.81	−43	−1	56.70	44.45	0	+7
26	61.54	4.32	−10	−9	28.27	54.19	−46	0	67.46	47.63	−40	+2	58.36	44.42	+19	+6
27	62.04	3.97	−27	−8	29.47	53.91	−40	+3	69.03	47.46	−30	+5	60.02	44.40	+31	+3
28	62.57	3.62	−40	−6	30.69	53.63	−26	+6	70.61	47.29	−14	+7	61.68	44.38	+36	0
29	63.13	3.26	−47	−3	31.93	53.35	−8	+7	72.19	47.12	+5	+6	63.34	44.36	+33	−4
30	63.71	2.91	−46	+1					73.79	46.96	+22	+5	64.99	44.35	+22	−6
31	64.32	2.56	−35	+5					75.39	46.80	+34	+2	66.64	44.34	+7	−7
32	64.95	2.21	−17	+7					77.00	46.65	+36	−2				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−89° 9′ 40″	68.302	−68.295	−89° 9′ 50″	68.529	−68.522	−89° 10′ 10″	68.987	−68.980
50	68.529	−68.522	60	68.757	−68.750	20	69.219	−69.212

$\alpha_{1939.0} = 20^{h}\ 0^{m}\ 20^{s}.97$ $\delta_{1939.0} = -89°\ 10'\ 14''.73$

*) Tag der doppelten unteren Kulmination: Jan. 21.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sh) σ Octantis $5^{m}.48$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	$20^{h}1^{m}$	$89°9'$	$0^{s}.01$	$0''.01$	$20^{h}1^{m}$	$89°9'$	$0^{s}.01$	$0''.01$	$20^{h}2^{m}$	$89°9'$	$0^{s}.01$	$0''.01$	$20^{h}2^{m}$	$89°10'$	$0^{s}.01$	$0''.01$
1	$6^{s}.64$	$44''.34$	+7	−7	$54^{s}.03$	$46''.59$	−29	+2	$26^{s}.85$	$52''.74$	−7	+8	$39^{s}.40$	$1''.89$	+30	0
2	8.28	44.34	−9	−6	55.38	46.74	−25	+5	27.63	52.99	+5	+8	39.36	2.19	+26	−3
3	9.92	44.35	−21	−4	56.71	46.89	−16	+7	28.38	53.25	+17	+6	39.29	2.49	+17	−6
4	11.55	44.36	−28	0	58.03	47.05	−3	+8	29.11	53.52	+26	+4	39.19	2.79	+4	−8
5	13.18	44.37	−28	+3	59.34	47.21	+10	+7	29.82	53.78	+30	+1	39.07	3.09	−12	−8
6	14.81	44.39	−22	+6	60.63	47.38	+21	+6	30.50	54.05	+29	−2	38.92	3.39	−27	−8
7	16.43	44.42	−10	+8	61.90	47.55	+28	+3	31.16	54.32	+22	−5	38.75	3.69	−40	−5
8	18.04	44.45	+3	+8	63.16	47.72	+31	0	31.80	54.59	+12	−7	38.55	3.99	−46	−2
9	19.65	44.48	+16	+7	64.40	47.90	+28	−3	32.41	54.86	−3	−8	38.32	4.29	−45	+1
10	21.25	44.52	+26	+5	65.63	48.08	+20	−6	33.00	55.14	−19	−9	38.06	4.58	−35	+4
11	22.84	44.56	+32	+2	66.83	48.26	+7	−8	33.56	55.42	−34	−7	37.78	4.88	−18	+6
12	24.43	44.61	+31	−1	68.02	48.45	−9	−9	34.10	55.70	−44	−4	37.47	5.17	+2	+7
13	26.00	44.67	+26	−4	69.19	48.64	−25	−8	34.61	55.98	−46	0	37.13	5.47	+21	+5
14	27.57	44.73	+16	−7	70.34	48.84	−38	−6	35.10	56.26	−40	+3	36.77	5.76	+35	+2
15	29.14	44.79	+1	−8	71.47	49.04	−44	−2	35.56	56.55	−25	+6	36.38	6.06	+39	−2
16	30.69	44.86	−15	−8	72.58	49.24	−42	+1	36.00	56.84	−5	+7	35.96	6.35	+34	−5
17	32.23	44.93	−29	−7	73.68	49.45	−31	+5	36.41	57.12	+15	+6	35.52	6.63	+21	−7
18	33.77	45.01	−39	−4	74.75	49.66	−14	+7	36.80	57.41	+32	+4	35.05	6.92	+5	−7
19	35.29	45.09	−42	0	75.81	49.88	+6	+7	37.16	57.71	+41	+1	34.56	7.21	−11	−5
20	36.81	45.18	−36	+3	76.84	50.10	+25	+6	37.49	58.00	+40	−3	34.04	7.49	−21	−2
21	38.31	45.27	−23	+6	77.86	50.32	+38	+3	37.79	58.30	+30	−5	33.49	7.77	−25	+2
22	39.80	45.37	−5	+7	78.85	50.55	+42	−1	38.07	58.59	+15	−6	32.92	8.05	−21	+5
23	41.28	45.47	+14	+6	79.83	50.78	+36	−4	{38.32 {38.55	58.89 59.18	−2 −16	−6} −3}	32.32	8.33	−12	+8
24	42.75	45.58	+29	+4	80.78	51.01	+23	−6	38.75	59.48	−24	0	31.69	8.60	0	+9
25	44.21	45.69	+38	+1	81.72	51.25	+7	−6	38.92	59.78	−25	+3	31.04	8.88	+13	+8
26	45.65	45.80	+38	−3	82.63	51.49	−10	−5	39.07	60.08	−19	+6	30.37	9.15	+24	+6
27	47.08	45.92	+29	−5	83.52	51.74	−21	−3	39.19	60.38	−9	+8	29.67	9.41	+31	+4
28	48.50	46.05	+15	−7	84.38	51.98	−27	+1	39.29	60.68	+3	+8	28.95	9.68	+32	+1
29	49.90	46.18	−2	−6	85.23	52.23	−25	+4	39.36	60.98	+15	+7	28.20	9.94	+30	−2
30	51.29	46.31	−17	−4	86.05	52.48	−17	+6	39.40	61.28	+24	+5	27.43	10.19	+22	−5
31	52.67	46.45	−26	−2	86.85	52.74	−7	+8	39.41	61.58	+30	+2	26.64	10.45	+10	−7
32	54.03	46.59	−29	+2					39.40	61.89	+30	0	25.82	10.70	−4	−8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−89° 9′ 40″	68.302	−68.295	−89° 9′ 50″	68.529	−68.522	−89° 10′ 10″	68.987	−68.980
50	68.529	−68.522	60	68.757	−68.750	20	69.219	−69.212

$\alpha_{1939.0} = 20^{h}\ 0^{m}\ 20^{s}.97$ $\delta_{1939.0} = -89°\ 10'\ 14''.73$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sh) σ Octantis $5^{m}.48$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$20^{h}\,1^{m}$	$-89°\,10'$	in $0^{s}.01$	in $0''.01$	$20^{h}\,1^{m}$	$-89°\,10'$	in $0^{s}.01$	in $0''.01$	$20^{h}\,0^{m}$	$-89°\,10'$	in $0^{s}.01$	in $0''.01$	$20^{h}\,0^{m}$	$-89°\,10'$	in $0^{s}.01$	in $0''.01$
1	$85^{s}.82$	$10''.70$	−4	−8	$51^{s}.93$	$16''.37$	−37	−4	$66^{s}.78$	$17''.02$	−19	+6	$28^{s}.60$	$12''.07$	+26	+4
2	84.98	10.95	−19	−8	50.56	16.48	−42	−1	65.33	16.94	−1	+6	27.59	11.82	+34	+1
3	84.12	11.20	−33	−6	49.18	16.59	−40	+2	63.89	16.85	+15	+5	26.61	11.57	+34	−3
4	83.23	11.44	−42	−3	47.78	16.69	−30	+5	62.46	16.76	+27	+2	25.65	11.31	+25	−5
5	82.32	11.68	−45	0	46.38	16.78	−15	+6	61.04	16.66	+33	−1	24.71	11.05	+11	−7
6	81.39	11.92	−39	+3	44.96	16.87	+3	+6	59.62	16.56	+29	−4	23.79	10.79	−5	−7
7	80.44	12.15	−26	+5	43.54	16.95	+19	+4	58.21	16.45	+19	−6	22.89	10.52	−19	−5
8	79.46	12.38	−9	+6	42.11	17.03	+30	+1	56.82	16.33	+3	−7	22.02	10.25	−27	−1
9	78.46	12.60	+11	+5	40.67	17.10	+32	−2	55.43	16.21	−12	−6	21.17	9.97	−28	+2
10	77.45	12.82	+26	+3	39.22	17.17	+26	−5	54.06	16.08	−24	−3	20.35	9.69	−23	+5
11	76.41	13.04	+35	0	37.77	17.23	+14	−7	52.69	15.95	−29	0	19.55	9.40	−12	+7
12	75.35	13.25	+34	−4	36.31	17.28	−2	−7	51.33	15.81	−27	+4	18.78	9.11	+2	+8
13	74.27	13.46	+24	−6	34.84	17.33	−16	−5	49.99	15.66	−18	+6	18.03	8.82	+16	+7
14	73.17	13.66	+10	−7	33.37	17.37	−26	−2	48.66	15.51	−5	+8	17.31	8.52	+27	+5
15	72.06	13.86	−6	−6	31.90	17.40	−28	+2	47.35	15.35	+9	+8	16.61	8.22	+33	+3
16	70.92	14.05	−19	−3	30.42	17.43	−22	+5	46.05	15.19	+23	+7	15.94	7.91	+33	0
17	69.77	14.24	−26	0	28.94	17.45	−11	+8	44.76	15.02	+31	+5	15.30	7.60	+29	−3
18	68.60	14.42	−24	+4	27.46	17.47	+3	+9	43.49	14.84	+35	+2	14.68	7.29	+19	−6
19	67.41	14.60	−16	+7	25.97	17.48	+17	+8	42.24	14.66	+33	−1	14.09	6.98	+4	−7
20	66.20	14.78	−3	+8	24.49	17.48	+28	+6	41.00	14.47	+26	−5	13.52	6.67	−11	−8
21	64.98	14.95	+9	+9	23.00	17.48	+35	+3	39.78	14.28	+14	−7	12.98	6.35	−26	−7
22	63.74	15.12	+22	+7	21.52	17.47	+35	0	38.58	14.08	−1	−8	12.47	6.03	−37	−5
23	62.48	15.28	+31	+5	20.03	17.45	+31	−3	37.39	13.88	−16	−7	11.98	5.70	−43	−2
24	61.21	15.44	+34	+2	18.55	17.43	+21	−5	36.23	13.67	−29	−6	11.52	5.37	−40	+2
25	59.92	15.59	+33	−1	17.07	17.40	+8	−7	35.08	13.46	−38	−3	11.09	5.04	−30	+5
26	58.62	15.73	+26	−4	15.59	17.36	−6	−8	33.95	13.24	−40	0	10.69	4.71	−14	+6
27	57.31	15.87	+16	−6	14.11	17.32	−20	−7	32.84	13.01	−35	+3	10.32	4.38	+5	+6
28	55.98	16.00	+2	−7	12.64	17.27	−33	−5	31.75	12.78	−23	+6	9.97	4.04	+22	+5
29	54.65	16.13	−13	−7	11.17	17.22	−39	−2	30.68	12.55	−6	+6	9.65	3.70	+34	+2
30	53.30	16.25	−26	−7	9.70	17.16	−39	+1	29.63	12.31	+12	+6	9.36	3.36	+37	−1
31	51.93	16.37	−37	−4	8.24	17.09	−32	+4	28.60	12.07	+26	+4	9.10	3.02	+32	−4
32					6.78	17.02	−19	+6					8.87	2.68	+20	−6

δ	sec δ	tg δ	δ	sec δ	tg δ
−89° 10′ 0″	68.757	−68.750	−89° 10′ 10″	68.987	−68.980
10	68.987	−68.980	20	69.219	−69.212

$\alpha_{1939.0} = 20^{h}\ 0^{m}\ 20^{s}.97$ $\delta_{1939.0} = -89°\ 10'\ 14''.73$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Si) β Octantis $4^{m}.34$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	$22^h 39^m$	$81° 42'$	$0.^s01$	$0.''01$	$22^h 39^m$	$81° 42'$	$0.^s01$	$0.''01$	$22^h 39^m$	$81° 41'$	$0.^s01$	$0.''01$	$22^h 39^m$	$81° 41'$	$0.^s01$	$0.''01$
1	$50.^s59$	$19.''29$	−4	−10	$48.^s10$	$10.''52$	−3	+3	$47.^s71$	$60.''38$	−2	+5	$49.^s37$	$49.''08$	+4	+3
2	50.48	19.07	−5	−7	48.06	10.18	−1	+6	47.73	60.00	0	+7	49.46	48.74	+4	0
3	50.37	18.85	−5	−3	48.02	9.84	+1	+8	*)47.75	59.62	+2	+7	49.54	48.40	+3	−3
4	50.26	18.63	−4	+2	47.98	9.49	+3	+7	47.78	59.25	+4	+5	49.64	48.07	+1	−5
5	50.16	18.40	−2	+6	47.94	9.15	+5	+5	47.81	58.87	+4	+2	49.73	47.74	−1	−6
6	50.06	18.16	0	+8	47.91	8.80	+5	+2	47.84	58.50	+4	−1	49.82	47.41	−2	−5
7	49.96	17.92	+3	+8	47.87	8.45	+4	−2	47.87	58.12	+3	−4	49.92	47.09	−3	−2
8	49.86	17.67	+4	+7	47.84	8.10	+2	−4	47.91	57.75	+1	−5	50.02	46.76	−4	+1
9	49.76	17.42	+5	+4	47.81	7.75	0	−5	47.94	57.37	−1	−5	50.11	46.44	−3	+4
10	49.66	17.16	+5	0	47.78	7.39	−2	−4	47.98	57.00	−3	−3	50.22	46.12	−2	+6
11	49.57	16.90	+3	−3	47.76	7.03	−3	−2	48.02	56.62	−3	−1	50.32	45.81	−1	+8
12	49.48	16.64	+1	−5	47.74	6.67	−4	+1	48.06	56.25	−3	+2	50.42	45.50	+1	+8
13	49.39	16.37	−1	−5	47.72	6.31	−3	+3	48.11	55.88	−3	+5	50.53	45.19	+2	+7
14	49.30	16.09	−2	−4	47.70	5.94	−2	+6	48.15	55.51	−1	+7	50.64	44.88	+3	+5
15	49.22	15.82	−3	−1	47.69	5.58	−1	+7	48.21	55.14	0	+8	50.75	44.58	+4	+2
16	49.14	15.53	−4	+1	47.67	5.21	+1	+7	48.26	54.77	+2	+7	50.86	44.28	+3	−1
17	49.06	15.25	−3	+4	47.66	4.85	+2	+6	48.31	54.41	+3	+6	50.97	43.98	+3	−5
18	48.98	14.96	−2	+6	47.65	4.48	+3	+5	48.37	54.04	+3	+4	51.08	43.69	+1	−7
19	48.90	14.66	−1	+7	47.65	4.11	+4	+2	48.43	53.68	+4	+1	51.20	43.40	0	−9
20	48.82	14.36	+1	+7	47.64	3.74	+3	−1	48.48	53.31	+3	−3	51.32	43.11	−2	−9
21	48.75	14.06	+2	+6	47.64	3.37	+3	−4	48.55	52.95	+2	−6	51.44	42.83	−4	−7
22	48.68	13.76	+3	+4	47.64	2.99	+2	−7	48.61	52.59	+1	−8	51.56	42.55	−4	−4
23	48.61	13.45	+4	+1	47.65	2.62	0	−9	48.68	52.23	−1	−9	51.69	42.27	−4	−1
24	48.55	13.14	+3	−2	47.65	2.25	−2	−10	48.75	51.87	−3	−9	51.81	42.00	−3	+3
25	48.49	12.82	+2	−6	47.66	1.87	−4	−9	48.82	51.52	−4	−7	51.94	41.73	−1	+6
26	48.43	12.50	+1	−8	47.67	1.50	−5	−6	48.89	51.16	−5	−4	52.07	41.47	+1	+7
27	48.37	12.18	−1	−10	47.68	1.13	−5	−3	48.97	50.81	−4	0	52.19	41.21	+3	+6
28	48.31	11.86	−3	−10	47.70	0.75	−4	+1	49.04	50.46	−3	+3	52.32	40.96	+4	+4
29	48.25	11.53	−4	−8	47.71	0.38	−2	+5	49.12	50.11	−1	+6	52.46	40.71	+4	+1
30	48.20	11.20	−5	−5					49.20	49.77	+1	+7	52.59	40.46	+3	−2
31	48.15	10.86	−4	−1					49.29	49.42	+3	+6	52.72	40.22	+2	−4
32	48.10	10.52	−3	+3					49.37	49.08	+4	+3				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−81° 41′ 40″	6.923	−6.850	−81° 41′ 50″	6.925	−6.852	−81° 42′ 10″	6.930	−6.857
50	6.925	−6.852	60	6.927	−6.855	20	6.932	−6.859

$\alpha_{1939.0} = 22^h\ 39^m\ 56.^s69$ $\delta_{1939.0} = -81°\ 42'\ 8.''74$

*) Tag der doppelten unteren Kulmination: März 3.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Si) β Octantis $4^{m}.34$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$22^h 39^m$	81° 41′	$0^s.01$	$0''.01$	$22^h 39^m$	81° 41′	$0^s.01$	$0''.01$	$22^h 40^m$	81° 41′	$0^s.01$	$0''.01$	$22^h 40^m$	81° 41′	$0^s.01$	$0''.01$
1	52.72	40.22	+2	−4	57.33	34.97	−3	−2	1.98	34.65	−2	+5	5.80	39.23	+2	+6
2	52.86	39.98	0	−6	57.49	34.88	−4	+1	2.12	34.72	−1	+7	5.90	39.45	+3	+3
3	52.99	39.75	−2	−6	57.65	34.79	−3	+4	2.26	34.80	0	+7	5.99	39.67	+3	0
4	53.13	39.51	−3	−4	57.81	34.71	−2	+6	2.41	34.88	+2	+6	6.08	39.90	+3	−3
5	53.27	39.29	−4	−1	57.96	34.64	0	+7	2.55	34.97	+3	+5	6.17	40.13	+2	−6
6	53.41	39.07	−4	+2	58.12	34.57	+1	+7	2.69	35.06	+3	+2	6.25	40.36	0	−8
7	53.55	38.85	−3	+5	58.28	34.51	+2	+6	2.83	35.16	+3	−1	6.34	40.60	−1	−10
8	53.69	38.63	−1	+7	58.44	34.45	+3	+4	2.97	35.27	+3	−4	6.42	40.84	−3	−9
9	53.83	38.43	0	+8	58.59	34.40	+4	+1	3.10	35.38	+1	−7	6.50	41.08	−4	−8
10	53.98	38.22	+2	+7	58.75	34.35	+3	−2	3.24	35.49	0	−9	6.58	41.33	−5	−5
11	54.12	38.02	+3	+6	58.91	34.31	+2	−6	3.38	35.61	−2	−10	6.65	41.58	−5	−1
12	54.27	37.82	+4	+3	59.07	34.28	+1	−8	3.51	35.73	−4	−9	6.72	41.84	−3	+3
13	54.41	37.63	+4	0	59.22	34.25	−1	−10	3.64	35.86	−5	−6	6.79	42.10	−1	+6
14	54.56	37.45	+3	−3	59.38	34.22	−3	−9	3.77	36.00	−5	−3	6.86	42.36	+1	+7
15	54.71	37.27	+2	−6	59.54	34.21	−4	−8	3.90	36.14	−4	+1	6.92	42.62	+3	+6
16	54.86	37.09	0	−8	59.70	34.19	−5	−4	4.02	36.28	−2	+5	6.98	42.89	+4	+4
17	55.01	36.92	−2	−9	59.85	34.18	−4	0	4.15	36.43	0	+7	7.04	43.15	+4	+1
18	55.16	36.76	−3	−8	60.01	34.18	−3	+4	4.27	36.59	+2	+7	7.10	43.43	+3	−2
19	55.31	36.60	−4	−6	60.16	34.18	−1	+7	4.39	36.75	+4	+6	7.15	43.70	+2	−4
20	55.47	36.44	−4	−2	60.32	34.19	+1	+8	4.51	36.91	+5	+3	7.20	43.98	0	−5
21	55.62	36.29	−3	+2	60.48	34.21	+3	+7	4.63	37.08	+4	0	7.25	44.25	−2	−4
22	55.77	36.14	−2	+5	60.63	34.23	+5	+5	4.75	37.25	+3	−3	7.30	44.54	−3	−1
23	55.93	36.00	0	+7	60.78	34.25	+5	+1	4.86	37.43	+1	−5	7.34	44.82	−3	+1
24	56.08	35.87	+2	+7	60.94	34.28	+4	−2	4.97	37.61	−1	−5	7.38	45.10	−3	+4
25	56.24	35.74	+4	+6	61.09	34.32	+2	−4	5.08	37.80	−3	−3	7.42	45.39	−2	+7
26	56.39	35.61	+5	+3	61.24	34.36	0	−5	5.19	37.99	−3	−1	7.45	45.68	0	+8
27	56.55	35.49	+4	0	61.39	34.41	−2	−5	5.30	38.19	−3	+2	7.48	45.96	+1	+8
28	56.70	35.38	+3	−3	61.54	34.46	−3	−3	5.41	38.39	−3	+5	7.51	46.26	+2	+7
29	56.86	35.27	+1	−5	61.68	34.52	−3	0	5.51	38.59	−1	+7	7.54	46.55	+3	+5
30	57.01	35.16	−1	−6	61.83	34.58	−3	+3	5.61	38.80	0	+7	7.56	46.85	+3	+2
31	57.17	35.06	−2	−5	61.98	34.65	−2	+5	5.71	39.01	+1	+7	7.58	47.14	+3	−1
32	57.33	34.97	−3	−2					5.80	39.23	+2	+6	7.60 7.62	47.44 47.74	+2 +1	−4 −7

δ	sec δ	tg δ	δ	sec δ	tg δ
−81° 41′ 30″	6.920	−6.848	−81° 41′ 40″	6.923	−6.850
40	6.923	−6.850	50	6.925	−6.852

$\alpha_{1939.0} = 22^h\ 39^m\ 56^s.69$ $\delta_{1939.0} = -81°\ 42'\ 8''.74$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Si) β Octantis $4^m.34$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	$22^h 40^m$	81° 41′	$0^s.01$	0″.01	$22^h 40^m$	81° 41′	$0^s.01$	0″.01	$22^h 39^m$	81° 42′	$0^s.01$	0″.01	$22^h 39^m$	81° 42′	$0^s.01$	0″.01
1	{7.60 {7.62	47.44 47.74	+2 +1	−4} −7}	6.79	56.64	−3	−8	63.64	3.54	−3	+2	59.46	5.48	+2	+6
2	7.63	48.04	0	−9	6.72	56.92	−4	−6	63.52	3.69	−1	+5	59.31	5.45	+3	+5
3	7.64	48.34	−2	−9	6.65	57.19	−4	−4	63.39	3.83	+1	+6	59.17	5.42	+4	+2
4	7.65	48.64	−4	−8	6.58	57.46	−4	0	63.25	3.97	+2	+6	59.03	5.37	+4	−1
5	7.65	48.94	−5	−6	6.50	57.73	−3	+3	63.12	4.11	+4	+3	58.89	5.32	+3	−4
6	7.65	49.25	−5	−3	6.42	58.00	−1	+5	62.99	4.24	+4	0	58.75	5.27	+1	−6
7	7.65	49.55	−4	+1	6.34	58.26	+1	+6	62.86	4.36	+3	−3	58.61	5.21	−1	−6
8	7.65	49.85	−2	+4	6.25	58.52	+3	+5	62.72	4.48	+2	−5	58.47	5.14	−3	−5
9	7.64	50.16	0	+6	6.17	58.77	+4	+2	62.58	4.59	0	−6	58.33	5.06	−3	−2
10	7.63	50.46	+2	+6	6.08	59.03	+4	−1	62.45	4.69	−2	−6	58.19	4.98	−4	+1
11	7.61	50.76	+4	+4	5.99	59.27	+3	−4	62.31	4.79	−3	−4	58.05	4.89	−3	+4
12	7.60	51.06	+4	+1	5.89	59.52	+1	−6	62.17	4.89	−4	−1	57.91	4.79	−1	+7
13	7.58	51.37	+4	−2	5.80	59.76	−1	−6	62.03	4.97	−3	+3	57.78	4.69	0	+8
14	7.56	51.67	+3	−4	5.70	60.00	−3	−5	61.89	5.06	−2	+6	57.65	4.59	+2	+8
15	7.54	51.97	+1	−6	5.60	60.23	−3	−2	61.74	5.13	−1	+8	57.51	4.48	+3	+6
16	7.51	52.27	−1	−5	5.50	60.46	−3	+1	61.60	5.20	+1	+8	57.38	4.36	+3	+4
17	7.48	52.57	−3	−3	5.40	60.69	−3	+5	61.46	5.26	+2	+8	57.25	4.24	+4	+1
18	7.45	52.87	−3	0	5.30	60.91	−1	+7	61.31	5.32	+3	+6	57.12	4.11	+3	−2
19	7.41	53.17	−3	+3	5.19	61.13	0	+9	61.17	5.37	+4	+3	56.99	3.97	+2	−5
20	7.38	53.46	−2	+6	5.08	61.34	+2	+8	61.02	5.41	+4	0	56.86	3.83	0	−8
21	7.34	53.76	−1	+8	4.97	61.55	+3	+7	60.88	5.45	+3	−4	56.74	3.68	−1	−9
22	7.29	54.05	+1	+8	4.86	61.75	+4	+5	60.74	5.48	+1	−6	56.61	3.52	−3	−8
23	7.25	54.35	+2	+8	4.74	61.95	+4	+2	60.60	5.51	0	−8	56.49	3.36	−4	−7
24	7.20	54.64	+3	+6	4.63	62.15	+3	−1	60.45	5.53	−2	−8	56.36	3.20	−5	−4
25	7.15	54.93	+4	+3	4.51	62.34	+2	−4	60.31	5.54	−3	−7	56.24	3.03	−4	0
26	7.10	55.22	+4	0	4.39	62.53	+1	−7	60.17	5.55	−4	−5	56.12	2.85	−3	+3
27	7.04	55.51	+3	−3	4.27	62.71	0	−8	60.03	5.55	−4	−2	56.00	2.67	−1	+6
28	6.98	55.80	+2	−6	4.15	62.89	−2	−8	59.88	5.54	−3	+2	55.88	2.48	+1	+7
29	6.92	56.08	0	−8	4.02	63.06	−4	−7	59.74	5.53	−2	+4	55.76	2.28	+3	+6
30	6.86	56.36	−1	−9	3.90	63.22	−4	−4	59.60	5.51	0	+6	55.65	2.08	+4	+4
31	6.79	56.64	−3	−8	3.77	63.38	−4	−1	59.46	5.48	+2	+6	55.54	1.88	+4	+1
32					3.64	63.54	−3	+2					55.43	1.67	+3	−2

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−81° 41′ 40″	6.923	−6.850	−81° 41′ 50″	6.925	−6.852	−81° 42′ 0″	6.927	−6.855
50	6.925	−6.852	60	6.927	−6.855	10	6.930	−6.857

$\alpha_{1939.0} = 22^h\ 39^m\ 56^s.69$ $\delta_{1939.0} = -81°\ 42'\ 8''.74$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sk) τ Octantis $5^m.56$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$23^h 19^m$	—87° 49′	in $0.^s01$	in $0.''01$	$23^h 19^m$	—87° 48′	in $0.^s01$	in $0.''01$	$23^h 19^m$	—87° 48′	in $0.^s01$	in $0.''01$	$23^h 19^m$	—87° 48′	in $0.^s01$	in $0.''01$
1	$20.^s06$	$17.''44$	−6	−10	$7.^s16$	$69.''32$	−13	+2	$2.^s05$	$59.''21$	−10	+4	$4.^s40$	$47.''40$	+13	+4
2	19.55	17.25	−12	−8	6.87	68.99	−7	+6	2.00	58.83	−3	+6	4.61	47.04	+15	+1
3	19.04	17.06	−15	−4	6.58	68.66	0	+8	1.95	58.44	+4	+7	4.83	46.67	+13	−2
4	18.54	16.86	−14	0	6.29	68.33	+7	+8	1.92	58.06	+11	+6	5.05	46.32	+8	−4
5	18.05	16.65	−11	+5	6.02	67.99	+13	+6	1.89	57.67	+14	+4	5.29	45.96	+2	−5
6	17.56	16.44	−4	+8	5.76	67.65	+16	+3	1.87	57.28	+15	0	5.53	45.60	−4	−5
7	17.08	16.23	+4	+9	5.50	67.31	+14	0	1.86	56.90	+12	−3	5.77	45.25	−10	−4
8	16.60	16.01	+11	+8	5.25	66.96	+9	−3	1.85	56.51	+6	−5	6.03	44.90	−13	0
9	16.13	15.78	+15	+5	5.01	66.61	+3	−5	1.86	56.12	−1	−5	6.29	44.54	−14	+2
10	15.67	15.55	+16	+2	4.78	66.26	−4	−4	1.88	55.74	−7	−4	6.56	44.20	−11	+5
11	15.21	15.32	+13	−2	4.56	65.90	−9	−3	1.91	55.35	−11	−2	6.84	43.85	−7	+7
12	14.76	15.08	+7	−4	4.35	65.55	−13	0	1.94	54.97	−13	+1	7.13	43.51	−2	+8
13	14.31	14.83	0	−5	4.14	65.19	−13	+2	*)1.98	54.58	−12	+4	7.42	43.17	+3	+7
14	13.87	14.58	−6	−4	3.95	64.83	−11	+5	2.04	54.20	−10	+6	7.72	42.84	+8	+5
15	13.43	14.32	−11	−2	3.76	64.46	−8	+6	2.10	53.81	−5	+7	8.03	42.51	+12	+3
16	13.01	14.06	−13	0	3.58	64.10	−3	+7	2.16	53.43	0	+7	8.34	42.18	+13	0
17	12.59	13.80	−13	+3	3.41	63.73	+2	+7	2.24	53.05	+6	+6	8.66	41.85	+12	−3
18	12.17	13.53	−11	+5	3.25	63.36	+7	+5	2.33	52.66	+9	+4	8.99	41.53	+9	−6
19	11.76	13.26	−6	+6	3.10	62.99	+11	+3	2.42	52.28	+12	+2	9.32	41.20	+4	−8
20	11.36	12.98	−1	+6	2.95	62.62	+12	0	2.52	51.90	+13	−1	9.66	40.89	−2	−9
21	10.97	12.70	+4	+6	2.81	62.25	+12	−3	2.63	51.51	+11	−5	10.01	40.57	−8	−8
22	10.59	12.41	+8	+4	2.69	61.87	+10	−6	2.75	51.13	+7	−7	10.37	40.26	−13	−5
23	10.21	12.12	+12	+2	2.57	61.49	+5	−9	2.88	50.75	+2	−9	10.73	39.95	−14	−2
24	9.84	11.82	+13	−1	2.46	61.12	−1	−10	3.01	50.38	−4	−9	11.10	39.65	−12	+2
25	9.48	11.52	+12	−5	2.36	60.74	−7	−9	3.16	50.00	−10	−8	11.47	39.34	−8	+5
26	9.13	11.22	+8	−8	2.27	60.36	−12	−7	3.31	49.62	−14	−5	11.85	39.05	−1	+7
27	8.78	10.91	+3	−10	2.19	59.98	−15	−4	3.47	49.25	−14	−1	12.24	38.75	+5	+7
28	8.44	10.60	−4	−10	2.12	59.60	−14	0	3.64	48.88	−12	+2	12.63	38.46	+11	+5
29	8.11	10.29	−10	−9	2.05	59.21	−10	+4	3.82	48.51	−6	+5	13.03	38.17	+14	+2
30	7.79	9.97	−14	−6					4.00	48.14	+1	+7	13.43	37.89	+14	−1
31	7.47	9.65	−15	−2					4.20	47.77	+8	+6	13.84	37.61	+10	−4
32	7.16	9.32	−13	+2					4.40	47.40	+13	+4				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 48′ 30″	26.149	−26.130	−87° 48′ 50″	26.215	−26.196	−87° 49′ 10″	26.282	−26.263
40	26.182	−26.163	60	26.249	−26.230	20	26.316	−26.297

$\alpha_{1939.0} = 23^h\ 19^m\ 41.^s92$ $\delta_{1939.0} = -87°\ 49'\ 4.''46$

*) Tag der doppelten unteren Kulmination: März 13.

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sk) τ Octantis $5^m.56$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$23^h 19^m$	87° 48′	$0^s.01$	$0''.01$	$23^h 19^m$	87° 48′	$0^s.01$	$0''.01$	$23^h 19^m$	87° 48′	$0^s.01$	$0''.01$	$23^h 20^m$	87° 48′	$0^s.01$	$0''.01$
1	13.84	37.61	+10	−4	28.88	31.15	−11	−3	45.47	29.65	−12	+4	0.54	33.30	+5	+6
2	14.26	37.33	+5	−5	29.42	31.02	−13	0	46.01	29.69	−8	+6	0.95	33.50	+9	+4
3	14.68	37.06	−2	−6	29.96	30.89	−13	+2	46.55	29.73	−3	+7	1.34	33.70	+12	+1
4	15.11	36.79	−8	−4	30.51	30.77	−11	+5	47.08	29.78	+2	+7	1.73	33.91	+12	−2
5	15.54	36.53	−12	−2	31.06	30.66	−6	+6	47.62	29.83	+7	+5	2.11	34.12	+11	−5
6	15.98	36.27	−14	+1	31.61	30.55	−1	+7	48.15	29.89	+10	+3	2.49	34.33	+7	−8
7	16.42	36.02	−12	+4	32.16	30.45	+4	+6	48.68	29.96	+12	0	2.85	34.55	+2	−9
8	16.87	35.77	−9	+6	32.71	30.35	+9	+5	49.21	30.03	+12	−3	3.22	34.77	−4	−10
9	17.32	35.52	−4	+7	33.26	30.26	+12	+2	49.73	30.11	+10	−6	3.57	35.00	−10	−9
10	17.78	35.28	+1	+7	33.82	30.17	+13	−1	50.25	30.19	+5	−9	3.92	35.23	−14	−6
11	18.24	35.04	+7	+6	34.38	30.09	+12	−4	50.77	30.28	−1	−10	4.25	35.47	−15	−2
12	18.71	34.81	+10	+4	34.94	30.01	+8	−7	51.28	30.37	−7	−10	4.58	35.71	−12	+2
13	19.18	34.58	+13	+1	35.49	29.94	+3	−9	51.79	30.47	−12	−7	4.90	35.95	−7	+5
14	19.66	34.36	+13	−2	36.05	29.88	−4	−10	52.30	30.57	−15	−4	5.21	36.20	0	+7
15	20.14	34.14	+10	−5	36.61	29.82	−9	−8	52.80	30.68	−14	0	5.52	36.45	+7	+7
16	20.62	33.93	+6	−8	37.17	29.77	−14	−5	53.30	30.79	−10	+4	5.81	36.70	+13	+5
17	21.11	33.72	0	−9	37.72	29.72	−15	−1	53.79	30.91	−3	+7	6.10	36.96	+15	+2
18	21.60	33.51	−6	−9	38.28	29.68	−12	+2	54.28	31.04	+4	+8	6.38	37.22	+14	−1
19	22.10	33.31	−11	−7	38.83	29.65	−7	+6	54.76	31.17	+11	+7	6.65	37.48	+9	−4
20	22.60	33.11	−14	−4	39.39	29.62	0	+8	55.24	31.30	+15	+4	6.91	37.75	+2	−5
21	23.11	32.92	−13	0	39.95	29.59	+7	+8	55.71	31.44	+15	+1	7.16	38.02	−4	−4
22	23.62	32.73	−10	+4	40.50	29.57	+13	+6	56.18	31.58	+12	−2	7.40	38.29	−10	−2
23	24.13	32.55	−4	+7	41.06	29.56	+15	+3	56.65	31.73	+6	−4	7.64	38.56	−13	0
24	24.65	32.37	+3	+8	41.62	29.55	+14	0	57.10	31.89	0	−5	7.86	38.84	−13	+3
25	25.17	32.20	+9	+7	42.17	29.55	+9	−3	57.55	32.05	−7	−4	8.07	39.12	−11	+6
26	25.69	32.04	+13	+4	42.72	29.55	+3	−5	58.00	32.21	−11	−2	8.28	39.40	−6	+7
27	26.22	31.87	+14	+1	43.27	29.56	−3	−5	58.44	32.38	−13	+1	8.47	39.69	−1	+8
28	26.74	31.72	+12	−2	43.82	29.57	−9	−3	58.87	32.56	−12	+4	8.66	39.98	+4	+7
29	27.27	31.57	+7	−5	44.37	29.59	−12	−1	59.30	32.74	−9	+6	8.84	40.27	+8	+5
30	27.80	31.42	0	−6	44.92	29.62	−13	+1	59.72	32.92	−4	+7	9.01	40.56	+11	+3
31	28.34	31.28	−6	−5	45.47	29.65	−12	+4	60.14	33.11	0	+7	9.16	40.86	+12	0
32	28.88	31.15	−11	−3					60.54	33.30	+5	+6	9.31	41.15	+12	−3

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 48′ 20″	26.116	−26.097	−87° 48′ 30″	26.149	−26.130	−87° 48′ 40″	26.182	−26.163
30	26.149	−26.130	40	26.182	−26.163	50	26.215	−26.196

$\alpha_{1939.0} = 23^h\ 19^m\ 41^s.92$ $\delta_{1939.0} = -87°\ 49'\ 4''.46$

Scheinbare Sternörter 1939

Obere Kulmination Greenwich

Sk) τ Octantis $5^m_.56$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	$23^h 20^m$	87° 48′	$0^s.01$	$0''.01$	$23^h 19^m$	87° 48′	$0^s.01$	$0''.01$	$23^h 19^m$	87° 48′	$0^s.01$	$0''.01$	$23^h 19^m$	87° 48′	$0^s.01$	$0''.01$
1	$9^s.31$	$41''.15$	+12	−3	$68^s.70$	$50''.73$	−5	−9	$58^s.54$	$58''.67$	−13	+1	$42^s.64$	$61''.92$	+3	+7
2	9.44	41.45	+9	−6	68.51	51.03	−10	−7	58.08	58.86	−8	+4	42.07	61.93	+9	+6
3	9.57	41.75	+4	−8	68.32	51.33	−14	−5	57.62	59.04	−1	+6	41.50	61.94	+13	+3
4	9.68	42.05	−2	−9	68.11	51.62	−14	−1	57.14	59.22	+5	+6	40.93	61.93	+14	0
5	9.79	42.36	−7	−9	67.89	51.92	−11	+2	56.67	59.40	+11	+4	40.36	61.93	+12	−3
6	9.89	42.66	−12	−7	67.67	52.21	−6	+5	56.18	59.57	+14	+2	39.79	61.91	+6	−5
7	9.97	42.97	−15	−4	67.43	52.50	+1	+6	55.69	59.74	+13	−1	39.21	61.89	0	−6
8	10.05	43.28	−14	0	67.18	52.79	+7	+5	55.19	59.90	+10	−4	38.64	61.86	−6	−5
9	10.12	43.59	−10	+3	66.92	53.07	+12	+3	54.69	60.05	+4	−6	38.06	61.83	−11	−3
10	10.17	43.91	−3	+6	66.65	53.35	+14	0	54.19	60.20	−3	−6	37.49	61.79	−13	0
11	10.22 10.25	44.22 44.53	+4 +10	+6 +5	66.38	53.63	+13	−3	53.68	60.34	−9	−4	36.92	61.74	−13	+3
12	10.27	44.84	+14	+3	66.09	53.91	+8	−5	53.16	60.48	−12	−2	36.34	61.69	−9	+6
13	10.29	45.16	+14	0	65.79	54.18	+1	−6	52.64	60.61	−13	+2	35.77	61.63	−5	+7
14	10.29	45.47	+11	−3	65.49	54.45	−5	−5	52.12	60.74	−12	+5	35.21	61.56	+1	+8
15	10.28	45.78	+5	−5	65.17	54.72	−10	−3	51.59	60.86	−8	+7	34.64	61.49	+6	+7
16	10.26	46.09	−1	−5	64.85	54.99	−13	0	51.05	60.97	−2	+8	34.07	61.41	+10	+5
17	10.23	46.40	−8	−4	64.52	55.25	−13	+3	50.51	61.08	+3	+8	33.51	61.32	+12	+2
18	10.19	46.71	−12	−1	64.18	55.51	−10	+6	49.97	61.18	+8	+6	32.95	61.23	+13	−1
19	10.14	47.02	−13	+2	63.83	55.76	−5	+8	49.42	61.27	+11	+4	32.39	61.13	+11	−4
20	10.08	47.34	−11	+5	63.47	56.01	0	+9	48.87	61.36	+13	+1	31.83	61.02	+7	−7
21	10.01	47.65	−8	+7	63.10	56.26	+6	+8	48.32	61.44	+12	−2	31.28	60.91	+1	−9
22	9.92	47.96	−3	+8	62.73	56.50	+10	+6	47.76	61.51	+9	−5	30.73	60.80	−5	−9
23	9.83	48.27	+2	+8	62.35	56.74	+12	+3	47.21	61.58	+5	−8	30.18	60.67	−10	−8
24	9.73	48.58	+7	+7	61.95	56.97	+12	0	46.65	61.65	−1	−8	29.64	60.55	−13	−5
25	9.61	48.89	+10	+4	61.55	57.20	+11	−3	46.09	61.71	−6	−8	29.10	60.41	−14	−1
26	9.49	49.20	+12	+1	61.15	57.42	+8	−6	45.52	61.76	−11	−6	28.56	60.27	−12	+2
27	9.35	49.51	+12	−2	60.73	57.64	+3	−8	44.94	61.81	−14	−3	28.03	60.12	−6	+5
28	9.20	49.82	+10	−5	60.31	57.86	−3	−8	44.37	61.84	−13	0	27.50	59.97	0	+7
29	9.05	50.12	+7	−7	59.87	58.07	−8	−8	43.79	61.88	−9	+4	26.98	59.81	+7	+7
30	8.88	50.43	+1	−8	59.44	58.27	−12	−5	43.21	61.90	−4	+6	26.46	59.64	+12	+5
31	8.70	50.73	−5	−9	58.99	58.47	−14	−2	42.64	61.92	+3	+7	25.94	59.47	+14	+2
32					58.54	58.67	−13	+1					25.43	59.29	+13	−1

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 48′ 40″	26.182	−26.163	−87° 48′ 50″	26.215	−26.196	−87° 49′ 0″	26.249	−26.230
50	26.215	−26.196	60	26.249	−26.230	10	26.282	−26.263

$\alpha_{1939.0} = 23^h\ 19^m\ 41^s.92$ $\delta_{1939.0} = -87°\ 49'\ 4''.46$

Polnahe Sterne 1939

Koordinaten der scheinbaren Örter für 12^{h} Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^{m}.56$		BD +89° 3 Gr. $9^{m}.06$		BD +89° 37 Gr. $10^{m}.06$		CPD −89° 38 Gr. $9^{m}.5$		Kurzperiod. Nutationsgl.*)	
1939	x	y	x	y	x	y	x	y	in 0.″01	
Jan. 0	−285.″05	+83.″07	−85.″23	+867.″77	−1066.″83	−340.″88	−61.″55	−317.″43	+ 9	−4
1	285.06	82.74	85.24	867.44	1066.84	341.21	61.42	317.76	+10	−1
2	285.07	82.41	85.25	867.12	1066.84	341.54	61.28	318.08	+10	+3
3	285.06	82.08	85.24	866.79	1066.84	341.87	61.14	318.41	+ 7	+6
4	285.05	81.75	85.23	866.45	1066.83	342.20	61.00	318.73	+ 3	+8
5	−285.03	+81.42	−85.21	+866.12	−1066.81	−342.54	−60.84	−319.05	− 1	+8
6	285.01	81.09	85.19	865.79	1066.79	342.87	60.68	319.37	− 6	+6
7	284.98	80.76	85.16	865.46	1066.76	343.20	60.52	319.69	− 8	+2
8	284.95	80.44	85.13	865.14	1066.73	343.53	60.35	320.00	− 9	−2
9	284.91	80.11	85.08	864.81	1066.68	343.85	60.17	320.31	− 8	−6
10	−284.86	+79.79	−85.03	+864.49	−1066.63	−344.17	−59.99	−320.62	− 5	−8
11	284.80	79.47	84.98	864.17	1066.58	344.49	59.80	320.93	− 1	−8
12	284.74	79.15	84.92	863.85	1066.52	344.81	59.61	321.23	+ 2	−6
13	284.67	78.84	84.85	863.54	1066.45	345.13	59.41	321.53	+ 4	−3
14	284.60	78.52	84.77	863.22	1066.37	345.45	59.21	321.83	+ 5	+1
15	−284.52	+78.21	−84.69	+862.91	−1066.29	−345.76	−59.00	−322.13	+ 4	+4
16	284.43	77.90	84.60	862.60	1066.20	346.07	58.78	322.42	+ 2	+6
17	284.33	77.59	84.51	862.29	1066.11	346.38	58.56	322.71	0	+8
18	284.23	77.28	84.41	861.98	1066.01	346.69	58.33	323.00	− 3	+7
19	284.13	76.98	84.31	861.68	1065.90	347.00	58.10	323.28	− 5	+6
20	−284.01	+76.68	−84.20	+861.38	−1065.79	−347.30	−57.87	−323.56	− 6	+4
21	283.89	76.38	84.08	861.08	1065.67	347.60	57.63	323.84	− 6	+1
22	283.77	76.08	83.95	860.78	1065.55	347.90	57.38	324.11	− 6	−2
23	283.64	75.79	83.82	860.49	1065.42	348.19	57.13	324.38	− 4	−5
24	283.50	75.49	83.69	860.19	1065.28	348.48	56.88	324.65	− 1	−7
25	−283.36	+75.21	−83.54	+859.91	−1065.13	−348.77	−56.62	−324.91	+ 2	−8
26	283.21	74.92	83.39	859.62	1064.98	349.06	56.35	325.17	+ 5	−7
27	283.06	74.63	83.24	859.34	1064.83	349.35	56.08	325.43	+ 8	−5
28	282.90	74.35	83.08	859.06	1064.67	349.63	55.81	325.68	+10	−2
29	282.73	74.08	82.91	858.78	1064.50	349.91	55.53	325.93	+10	+1
30	−282.56	+73.80	−82.74	+858.51	−1064.33	−350.18	−55.25	−326.18	+ 9	+5
31	282.38	73.54	82.57	858.25	1064.16	350.45	54.96	326.42	+ 6	+7
Febr. 1	282.20	73.27	82.39	857.98	1063.98	350.71	54.67	326.66	+ 1	+8
2	282.01	73.01	82.20	857.73	1063.79	350.97	54.38	326.89	− 3	+6
3	281.82	72.76	82.01	857.47	1063.60	351.23	54.08	327.12	− 6	+4
4	−281.62	+72.51	−81.81	+857.22	−1063.40	−351.48	−53.78	−327.34	− 8	0
5	281.41	72.26	81.60	856.97	1063.19	351.73	53.47	327.56	− 8	−4
6	−281.20	+72.01	−81.39	+856.72	−1062.98	−351.98	−53.16	−327.78	− 6	−7
Mittl. Ort	−259.″80	+78.″91	−59.″94	+863.″58	−1041.″60	−345.″01	−46.″36	−307.″45		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1939

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag		BD +89° 1 Gr. 10^{m}56		BD +89° 3 Gr. 9^{m}06		BD +89° 37 Gr. 10^{m}06		CPD −89° 38 Gr. 9^{m}5		Kurzperiod. Nutationsgl.*)	
1939		x	y	x	y	x	y	x	y	in 0″.01	
Febr.	6	−281″.20	+72″.01	−81″.39	+856″.72	−1062″.98	−351″.98	−53″.16	−327″.78	− 6	−7
	7	280.99	71.77	81.18	856.48	1062.77	352.22	52.85	327.99	− 3	−8
	8	280.77	71.53	80.96	856.25	1062.55	352.46	52.53	328.20	+ 1	−7
	9	280.55	71.30	80.74	856.02	1062.33	352.69	52.21	328.41	+ 3	−4
	10	280.32	71.08	80.51	855.79	1062.10	352.92	51.89	328.61	+ 5	−1
	11	−280.09	+70.85	−80.28	+855.57	−1061.87	−353.14	−51.56	−328.80	+ 4	+3
	12	279.85	70.64	80.04	855.36	1061.63	353.36	51.23	328.99	+ 3	+6
	13	279.61	70.43	79.80	855.15	1061.39	353.57	50.90	329.18	0	+8
	14	279.36	70.22	79.55	854.94	1061.14	353.78	50.56	329.36	− 2	+8
	15	279.11	70.02	79.30	854.74	1060.89	353.98	50.22	329.53	− 5	+7
	16	−278.85	+69.82	−79.05	+854.54	−1060.64	−354.18	−49.88	−329.70	− 6	+5
	17	278.60	69.63	78.79	854.35	1060.38	354.37	49.53	329.87	− 7	+2
	18	278.33	69.44	78.53	854.16	1060.12	354.56	49.19	330.04	− 6	−1
	19	278.07	69.26	78.26	853.98	1059.85	354.74	48.84	330.20	− 5	−4
	20	277.80	69.08	77.99	853.80	1059.58	354.92	48.48	330.35	− 3	−6
	21	−277.53	+68.91	−77.72	+853.63	−1059.31	−355.09	−48.13	−330.50	0	−7
	22	277.25	68.75	77.45	853.47	1059.04	355.25	47.77	330.64	+ 3	−8
	23	276.97	68.59	77.17	853.31	1058.76	355.41	47.41	330.78	+ 7	−6
	24	276.69	68.44	76.89	853.16	1058.48	355.56	47.05	330.91	+ 9	−4
	25	276.40	68.29	76.60	853.01	1058.19	355.71	46.68	331.04	+10	0
	26	−276.11	+68.15	−76.31	+852.87	−1057.90	−355.85	−46.31	−331.16	+ 9	+3
	27	275.82	68.01	76.02	852.73	1057.61	355.99	45.95	331.28	+ 7	+6
	28	275.53	67.88	75.73	852.60	1057.32	356.12	45.58	331.40	+ 3	+8
März	1	275.23	67.76	75.43	852.48	1057.02	356.24	45.21	331.51	− 1	+7
	2	274.93	67.64	75.13	852.36	1056.72	356.36	44.83	331.61	− 4	+5
	3	−274.63	+67.52	−74.83	+852.24	−1056.42	−356.48	−44.46	−331.71	− 7	+1
	4	274.33	67.42	74.53	852.14	1056.12	356.58	44.08	331.81	− 7	−3
	5	274.02	67.31	74.22	852.03	1055.81	356.69	43.70	331.90	− 6	−6
	6	273.71	67.22	73.91	851.94	1055.50	356.78	43.32	331.98	− 3	−8
	7	273.40	67.13	73.60	851.85	1055.19	356.87	42.94	332.06	0	−8
	8	−273.09	+67.04	−73.29	+851.77	−1054.88	−356.96	−42.56	−332.14	+ 3	−6
	9	272.78	66.97	72.98	851.69	1054.56	357.03	42.18	332.21	+ 5	−3
	10	272.46	66.89	72.66	851.62	1054.25	357.11	41.80	332.27	+ 5	+1
	11	272.15	66.83	72.35	851.55	1053.94	357.17	41.42	332.33	+ 4	+5
	12	271.83	66.77	72.03	851.50	1053.62	357.23	41.03	332.39	+ 1	+7
	13	−271.52	+66.72	−71.72	+851.45	−1053.30	−357.28	−40.65	−332.44	− 1	+8
	14	271.20	66.67	71.40	851.40	1052.98	357.33	40.26	332.48	− 4	+7
	15	−270.88	+66.64	−71.08	+851.36	−1052.66	−357.36	−39.88	−332.52	− 6	+6
Mittl. Ort		−259″.80	+78″.91	−59″.94	+863″.58	−1041″.60	−345″.01	−46″.36	−307″.45		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1939

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Nutationsgl.*)	
1939	*x*	*y*	*x*	*y*	*x*	*y*	*x*	*y*	in 0.″01	
März 15	−270.″88	+66.″64	−71.″08	+851.″36	−1052.″66	−357.″36	−39.″88	−332.″52	−6	+6
16	270.56	66.60	70.76	851.33	1052.34	357.40	39.49	332.56	−7	+3
17	270.24	66.58	70.44	851.31	1052.02	357.42	39.10	332.59	−7	0
18	269.92	66.56	70.12	851.29	1051.70	357.44	38.71	332.62	−6	−3
19	269.60	66.54	69.80	851.27	1051.38	357.46	38.33	332.64	−4	−5
20	−269.28	+66.54	−69.48	+851.26	−1051.06	−357.47	−37.94	−332.65	−1	−7
21	268.96	66.54	69.16	851.26	1050.74	357.47	37.55	332.66	+2	−7
22	268.64	66.54	68.84	851.27	1050.42	357.46	37.17	332.67	+5	−7
23	268.32	66.55	68.52	851.28	1050.10	357.45	36.78	332.67	+8	−4
23	268.00	66.57	68.20	851.30	1049.77	357.43	36.39	332.66	+9	−1
24	−267.67	+66.60	−67.88	+851.32	−1049.45	−357.41	−36.01	−332.65	+9	+2
25	267.35	66.63	67.56	851.35	1049.13	357.38	35.62	332.64	+7	+5
26	267.03	66.67	67.24	851.39	1048.81	357.34	35.24	332.62	+4	+7
27	266.71	66.71	66.92	851.43	1048.49	357.30	34.86	332.60	0	+8
28	266.39	66.76	66.60	851.48	1048.17	357.25	34.47	332.57	−3	+6
29	−266.07	+66.82	−66.28	+851.53	−1047.85	−357.20	−34.09	−332.54	−6	+3
30	265.76	66.88	65.97	851.59	1047.54	357.14	33.71	332.50	−7	−1
31	265.45	66.95	65.66	851.66	1047.23	357.07	33.33	332.45	−6	−4
April 1	265.14	67.02	65.35	851.73	1046.92	357.00	32.95	332.41	−4	−7
2	264.83	67.10	65.04	851.81	1046.61	356.92	32.58	332.35	−1	−8
3	−264.52	+67.18	−64.73	+851.90	−1046.30	−356.83	−32.20	−332.29	+2	−7
4	264.21	67.27	64.42	851.99	1045.99	356.74	31.82	332.23	+4	−4
5	263.91	67.37	64.12	852.09	1045.69	356.64	31.45	332.16	+5	−1
6	263.61	67.47	63.82	852.19	1045.39	356.54	31.08	332.09	+5	+3
7	263.31	67.58	63.52	852.30	1045.08	356.43	30.71	332.01	+3	+6
8	−263.01	+67.69	−63.22	+852.41	−1044.79	−356.32	−30.34	−331.93	0	+8
9	262.71	67.81	62.92	852.53	1044.49	356.20	29.97	331.85	−3	+8
10	262.42	67.94	62.63	852.66	1044.20	356.07	29.61	331.76	−5	+7
11	262.13	68.07	62.34	852.79	1043.91	355.94	29.24	331.66	−7	+4
12	261.84	68.20	62.05	852.92	1043.62	355.81	28.88	331.56	−7	+1
13	−261.56	+68.35	−61.77	+853.07	−1043.33	−355.66	−28.52	−331.46	−7	−2
14	261.28	68.50	61.49	853.22	1043.05	355.51	28.17	331.35	−5	−5
15	261.00	68.65	61.21	853.37	1042.77	355.36	27.81	331.23	−2	−7
16	260.72	68.81	60.93	853.53	1042.49	355.20	27.46	331.11	+1	−8
17	260.45	68.97	60.66	853.69	1042.22	355.04	27.10	330.99	+4	−7
18	−260.18	+69.14	−60.38	+853.86	−1041.95	−354.87	−26.76	−330.86	+7	−5
19	259.92	69.31	60.12	854.03	1041.68	354.70	26.41	330.73	+8	−3
20	−259.66	+69.49	−59.86	+854.21	−1041.42	−354.52	−26.07	−330.60	+9	+1
Mittl. Ort	−259.″80	+78.″91	−59.″94	+863.″58	−1041.″60	−345.″01	−46.″36	−307.″45		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Nutationsgl.*)	
1939	x	y	x	y	x	y	x	y	in 0".01	
April 20	−259".66	+69".49	−59".86	+854".21	−1041".42	−354".52	−26".07	−330".60	+9	+1
21	259.40	69.67	59.60	854.39	1041.16	354.34	25.73	330.46	+8	+4
22	259.14	69.86	59.34	854.58	1040.91	354.15	25.39	330.32	+5	+7
23	258.89	70.05	59.10	854.77	1040.65	353.96	25.05	330.17	+1	+7
24	258.64	70.25	58.85	854.97	1040.41	353.76	24.72	330.02	−2	+6
25	−258.40	+70.45	−58.61	+855.17	−1040.16	−353.56	−24.39	−329.86	−5	+4
26	258.16	70.66	58.37	855.38	1039.92	353.35	24.06	329.70	−7	+1
27	257.93	70.87	58.13	855.59	1039.69	353.14	23.74	329.54	−7	−3
28	257.69	71.08	57.90	855.80	1039.45	352.93	23.41	329.37	−5	−6
29	257.47	71.30	57.67	856.02	1039.23	352.71	23.10	329.20	−2	−8
30	−257.25	+71.53	−57.45	+856.25	−1039.01	−352.48	−22.78	−329.02	+1	−7
Mai 1	257.03	71.75	57.23	856.47	1038.79	352.26	22.47	328.84	+4	−5
2	256.81	71.99	57.02	856.71	1038.57	352.02	22.16	328.66	+5	−2
3	256.61	72.22	56.81	856.94	1038.37	351.79	21.86	328.47	+6	+2
4	256.40	72.46	56.61	857.18	1038.16	351.55	21.56	328.28	+4	+5
5	−256.20	+72.71	−56.41	+857.43	−1037.96	−351.30	−21.26	−328.08	+2	+7
6	256.00	72.96	56.22	857.68	1037.76	351.05	20.96	327.88	−1	+8
7	255.81	73.21	56.03	857.93	1037.57	350.80	20.67	327.68	−3	+7
8	255.63	73.46	55.84	858.18	1037.38	350.55	20.39	327.47	−6	+5
9	255.45	73.72	55.66	858.44	1037.20	350.29	20.10	327.26	−7	+2
10	−255.27	+73.98	−55.49	+858.70	−1037.03	−350.03	−19.83	−327.04	−7	−1
11	255.10	74.24	55.32	858.96	1036.85	349.77	19.55	326.83	−6	−4
12	254.94	74.51	55.15	859.23	1036.69	349.50	19.28	326.60	−3	−6
13	254.78	74.78	54.99	859.50	1036.53	349.23	19.02	326.38	0	−7
14	254.62	75.05	54.84	859.77	1036.37	348.96	18.76	326.15	+3	−7
15	−254.47	+75.33	−54.69	+860.05	−1036.22	−348.68	−18.50	−325.92	+6	−6
16	254.32	75.61	54.54	860.33	1036.07	348.40	18.24	325.69	+8	−4
17	254.18	75.89	54.40	860.61	1035.93	348.12	17.99	325.45	+9	−1
18	254.05	76.17	54.27	860.89	1035.80	347.84	17.74	325.22	+8	+3
19	253.92	76.46	54.14	861.18	1035.67	347.55	17.50	324.97	+6	+6
20	−253.80	+76.75	−54.02	+861.47	−1035.54	−347.26	−17.27	−324.73	+3	+7
21	253.68	77.04	53.91	861.76	1035.42	346.97	17.03	324.48	−1	+7
22	253.57	77.33	53.80	862.05	1035.31	346.68	16.81	324.23	−5	+5
23	253.46	77.63	53.69	862.35	1035.20	346.38	16.59	323.97	−7	+2
24	253.36	77.93	53.59	862.65	1035.10	346.08	16.37	323.71	−8	−2
25	−253.27	+78.23	−53.50	+862.95	−1035.01	−345.78	−16.16	−323.45	−6	−5
26	253.18	78.53	53.41	863.25	1034.92	345.48	15.95	323.19	−4	−7
27	−253.09	+78.83	−53.32	+863.55	−1034.83	−345.18	−15.75	−322.93	0	−8
Mittl. Ort	−259".80	+78".91	−59".94	+863".58	−1041".60	−345".01	−46".36	−307".45		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1939

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Nutationsgl.*)	
1939	x	y	x	y	x	y	x	y	in 0.″01	
Mai 27	−253.″09	+78.″83	−53.″32	+863.″55	−1034.″83	−345.″18	−15.″75	−322.″93	0	−8
28	253.02	79.14	53.25	863.85	1034.75	344.87	15.55	322.66	+3	−6
29	252.94	79.44	53.17	864.16	1034.68	344.57	15.35	322.39	+5	−3
30	252.88	79.75	53.11	864.47	1034.61	344.26	15.17	322.12	+6	0
31	252.82	80.06	53.05	864.78	1034.55	343.95	14.98	321.84	+5	+4
Juni 1	−252.76	+80.37	−52.99	+865.09	−1034.49	−343.64	−14.80	−321.57	+3	+6
2	252.71	80.69	52.94	865.40	1034.44	343.32	14.63	321.29	0	+8
3	252.67	81.00	52.90	865.71	1034.40	343.01	14.46	321.01	−3	+8
4	252.63	81.32	52.86	866.03	1034.36	342.69	14.30	320.72	−5	+6
5	252.60	81.63	52.83	866.34	1034.33	342.38	14.14	320.44	−6	+4
6	−252.57	+81.95	−52.80	+866.66	−1034.30	−342.06	−13.98	−320.15	−7	+1
7	252.55	82.26	52.78	866.97	1034.28	341.75	13.83	319.86	−6	−2
8	252.53	82.58	52.77	867.29	1034.26	341.44	13.69	319.57	−4	−5
9	252.52	82.90	52.76	867.61	1034.25	341.12	13.55	319.28	−2	−7
10	252.52	83.21	52.75	867.92	1034.25	340.80	13.42	318.98	+2	−8
11	−252.52	+83.53	−52.76	+868.24	−1034.25	−340.48	−13.29	−318.69	+5	−7
12	252.53	83.86	52.76	868.57	1034.26	340.16	13.17	318.39	+8	−5
13	252.54	84.18	52.78	868.89	1034.27	339.84	13.06	318.09	+9	−2
14	252.56	84.50	52.80	869.21	1034.29	339.52	12.95	317.79	+9	+1
15	252.58	84.82	52.82	869.53	1034.31	339.21	12.84	317.49	+8	+5
16	−252.61	+85.13	−52.85	+869.85	−1034.34	−338.89	−12.74	−317.19	+5	+7
17	252.65	85.45	52.89	870.17	1034.38	338.58	12.65	316.89	+1	+8
18	252.69	85.77	52.93	870.49	1034.42	338.26	12.56	316.59	−3	+6
19	252.74	86.09	52.98	870.81	1034.47	337.94	12.48	316.28	−7	+3
20	252.80	86.40	53.04	871.13	1034.52	337.63	12.40	315.98	−8	0
21	−252.86	+86.72	−53.10	+871.44	−1034.58	−337.31	−12.33	−315.67	−8	−4
22	252.92	87.04	53.16	871.75	1034.64	336.98	12.26	315.37	−6	−7
23	252.99	87.36	53.23	872.07	1034.71	336.66	12.20	315.06	−2	−8
24	253.07	87.68	53.31	872.38	1034.79	336.34	12.15	314.75	+1	−7
25	253.15	88.00	53.39	872.70	1034.87	336.02	12.10	314.44	+4	−4
26	−253.23	+88.31	−53.48	+873.01	−1034.95	−335.71	−12.06	−314.14	+5	−1
27	253.33	88.63	53.57	873.33	1035.04	335.39	12.02	313.83	+5	+3
28	253.42	88.94	53.67	873.64	1035.14	335.08	11.99	313.52	+3	+6
29	253.53	89.25	53.77	873.95	1035.24	334.77	11.96	313.21	+1	+7
30	253.64	89.56	53.88	874.26	1035.35	334.46	11.94	312.91	−2	+8
Juli 1	−253.75	+89.86	−54.00	+874.56	−1035.46	−334.16	−11.93	−312.60	−4	+7
2	253.87	90.17	54.12	874.87	1035.58	333.86	11.92	312.29	−6	+5
3	−254.00	+90.47	−54.25	+875.17	−1035.71	−333.55	−11.92	−311.98	−7	+2
Mittl. Ort	−259.″80	+78.″91	−59.″94	+863.″58	−1041.″60	−345.″01	−46.″36	−307.″45		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1939

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Nutationsgl.*)	
1939	x	y	x	y	x	y	x	y	in 0.″01	
Juli 3	−254.″00	+90.″47	−54.″25	+875.″17	−1035.″71	−333.″55	−11.″92	−311.″98	− 7	+2
4	254.13	90.77	54.38	875.47	1035.84	333.25	11.92	311.67	− 6	−1
5	254.27	91.08	54.52	875.78	1035.98	332.94	11.93	311.36	− 5	−4
6	254.41	91.38	54.66	876.08	1036.12	332.64	11.94	311.06	− 3	−6
7	254.55	91.68	54.81	876.38	1036.26	332.34	11.96	310.75	0	−7
8	−254.70	+ 91.98	−54.96	+876.67	−1036.41	−332.05	−11.99	−310.44	+ 4	−7
9	254.86	92.27	55.12	876.97	1036.57	331.75	12.02	310.14	+ 7	−6
10	255.02	92.57	55.28	877.26	1036.73	331.46	12.05	309.84	+ 9	−3
11	255.19	92.86	55.45	877.55	1036.90	331.17	12.10	309.54	+10	0
12	255.36	93.14	55.62	877.84	1037.07	330.88	12.14	309.24	+ 9	+3
13	−255.54	+ 93.43	−55.80	+878.12	−1037.25	−330.60	−12.20	−308.94	+ 7	+6
14	255.72	93.71	55.98	878.40	1037.43	330.32	12.26	308.64	+ 3	+8
15	255.91	93.99	56.17	878.68	1037.61	330.04	12.32	308.34	− 1	+7
16	256.10	94.27	56.36	878.96	1037.80	329.76	12.39	308.05	− 5	+5
17	256.29	94.55	56.55	879.24	1038.00	329.48	12.47	307.75	− 7	+1
18	−256.49	+ 94.82	−56.75	+879.51	−1038.20	−329.21	−12.55	−307.46	− 8	−3
19	256.70	95.09	56.96	879.78	1038.40	328.94	12.64	307.17	− 7	−6
20	256.91	95.36	57.17	880.05	1038.61	328.67	12.73	306.88	− 4	−8
21	257.13	95.63	57.39	880.32	1038.83	328.40	12.83	306.60	− 1	−8
22	257.35	95.89	57.61	880.58	1039.05	328.14	12.93	306.31	+ 2	−6
23	−257.58	+ 96.15	−57.84	+880.84	−1039.27	−327.88	−13.04	−306.03	+ 4	−3
24	257.81	96.41	58.07	881.10	1039.50	327.62	13.16	305.75	+ 5	+1
25	258.04	96.67	58.30	881.36	1039.73	327.36	13.28	305.47	+ 4	+5
26	258.28	96.92	58.54	881.61	1039.97	327.11	13.40	305.20	+ 1	+7
27	258.52	97.17	58.78	881.86	1040.21	326.86	13.53	304.92	− 1	+8
28	−258.77	+ 97.42	−59.03	+882.11	−1040.46	−326.61	−13.67	−304.65	− 4	+7
29	259.02	97.66	59.28	882.35	1040.71	326.37	13.81	304.39	− 6	+5
30	259.27	97.90	59.54	882.59	1040.96	326.13	13.95	304.12	− 7	+3
31	259.53	98.13	59.80	882.83	1041.22	325.90	14.11	303.86	− 7	0
Aug. 1	259.79	98.37	60.06	883.06	1041.48	325.66	14.26	303.60	− 6	−3
2	−260.06	+ 98.59	−60.33	+883.29	−1041.75	−325.44	−14.43	−303.34	− 4	−5
3	260.33	98.82	60.60	883.52	1042.02	325.21	14.60	303.09	− 1	−7
4	260.60	99.05	60.88	883.75	1042.29	324.98	14.77	302.84	+ 2	−7
5	260.88	99.27	61.15	883.97	1042.57	324.76	14.95	302.59	+ 5	−7
6	261.16	99.49	61.44	884.19	1042.85	324.54	15.13	302.34	+ 8	−5
7	−261.45	+ 99.70	−61.72	+884.40	−1043.14	−324.33	−15.31	−302.10	+10	−2
8	261.74	99.91	62.01	884.61	1043.43	324.12	15.50	301.87	+10	+2
9	−262.03	+100.11	−62.30	+884.81	−1043.72	−323.92	−15.70	−301.63	+ 8	+5
Mittl. Ort	−259.″80	+ 78.″91	−59.″94	+863.″58	−1041.″60	−345.″01	−46.″36	−307.″45		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1939

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10^m56		BD +89° 3 Gr. 9^m06		BD +89° 37 Gr. 10^m06		CPD −89° 38 Gr. 9^m5		Kurzperiod. Nutationsgl.*)	
1939	x	y	x	y	x	y	x	y	in 0.″01	
Aug. 9	−262.″03	+100.″11	−62.″30	+884.″81	−1043.″72	−323.″92	−15.″70	−301.″63	+ 8	+5
10	262.32	100.31	62.60	885.01	1044.01	323.72	15.90	301.41	+ 5	+7
11	262.62	100.51	62.90	885.21	1044.31	323.52	16.10	301.18	+ 2	+8
12	262.92	100.70	63.20	885.40	1044.61	323.33	16.31	300.96	− 2	+6
13	263.23	100.89	63.51	885.59	1044.92	323.14	16.53	300.75	− 6	+3
14	−263.54	+101.08	−63.82	+885.78	−1045.23	−322.95	−16.75	−300.54	− 7	−1
15	263.85	101.26	64.13	885.96	1045.54	322.77	16.97	300.33	− 7	−4
16	264.16	101.44	64.44	886.14	1045.85	322.59	17.19	300.12	− 5	−7
17	264.48	101.62	64.76	886.31	1046.17	322.41	17.42	299.92	− 2	−8
18	264.80	101.79	65.08	886.48	1046.49	322.24	17.66	299.73	+ 1	−7
19	−265.13	+101.96	−65.41	+886.65	−1046.81	−322.07	−17.89	−299.53	+ 4	−4
20	265.45	102.12	65.73	886.81	1047.14	321.91	18.14	299.35	+ 5	−1
21	265.79	102.28	66.07	886.97	1047.47	321.75	18.38	299.16	+ 4	+3
22	266.12	102.43	66.40	887.12	1047.80	321.60	18.63	298.98	+ 2	+6
23	266.46	102.58	66.74	887.27	1048.14	321.45	18.89	298.81	− 1	+8
24	−266.80	+102.73	−67.08	+887.42	−1048.48	−321.30	−19.15	−298.64	− 3	+8
25	267.14	102.87	67.41	887.56	1048.81	321.16	19.40	298.48	− 6	+6
26	267.48	103.01	67.76	887.69	1049.16	321.02	19.67	298.32	− 7	+4
27	267.82	103.15	68.10	887.83	1049.50	320.88	19.93	298.16	− 7	+1
28	268.17	103.28	68.45	887.95	1049.85	320.76	20.20	298.01	− 7	−2
29	−268.52	+103.40	−68.80	+888.08	−1050.20	−320.63	−20.47	−297.87	− 5	−4
30	268.87	103.52	69.15	888.20	1050.55	320.51	20.75	297.73	− 3	−6
31	269.23	103.64	69.50	888.31	1050.90	320.40	21.03	297.59	0	−7
Sept. 1	269.59	103.75	69.86	888.42	1051.26	320.29	21.31	297.46	+ 4	−7
2	269.95	103.85	70.22	888.53	1051.62	320.19	21.60	297.34	+ 7	−5
3	−270.31	+103.95	−70.58	+888.63	−1051.98	−320.09	−21.88	−297.22	+ 9	−3
4	270.67	104.05	70.94	888.73	1052.34	319.99	22.17	297.11	+10	0
5	271.03	104.15	71.30	888.83	1052.70	319.89	22.46	297.00	+ 9	+3
6	271.39	104.24	71.67	888.92	1053.06	319.80	22.76	296.90	+ 7	+6
7	271.76	104.32	72.03	889.00	1053.43	319.72	23.05	296.80	+ 3	+7
8	−272.12	+104.40	−72.40	+889.08	−1053.79	−319.64	−23.35	−296.71	0	+7
9	272.49	104.47	72.77	889.16	1054.16	319.57	23.65	296.63	− 4	+5
10	272.86	104.54	73.14	889.23	1054.53	319.50	23.95	296.55	− 6	+1
11	273.24	104.60	73.51	889.29	1054.91	319.44	24.26	296.48	− 6	−3
12	273.61	104.66	73.89	889.35	1055.28	319.38	24.57	296.41	− 5	−6
13	−273.98	+104.72	−74.26	+889.41	−1055.65	−319.32	−24.88	−296.35	− 2	−8
14	274.36	104.77	74.64	889.46	1056.03	319.27	25.19	296.29	+ 1	−8
15	−274.73	+104.82	−75.01	+889.51	−1056.40	−319.22	−25.50	−296.25	+ 3	−6
Mittl. Ort	−259.″80	+ 78.″91	−59.″94	+863.″58	−1041.″60	−345.″01	−46.″36	−307.″45		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Koordinaten der scheinbaren Örter für 12ʰ Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10ᵐ.56		BD +89° 3 Gr. 9ᵐ.06		BD +89° 37 Gr. 10ᵐ.06		CPD −89° 38 Gr. 9ᵐ.5		Kurzperiod. Nutationsgl.*)	
1939	x	y	x	y	x	y	x	y	in 0″.01	
Sept. 15	−274″.73	+104″.82	−75″.01	+889″.51	−1056″.40	−319″.22	−25″.50	−296″.25	+3	−6
16	275.11	104.86	75.39	889.55	1056.78	319.18	25.81	296.20	+5	−2
17	275.49	104.90	75.77	889.59	1057.16	319.14	26.12	296.17	+5	+2
18	275.86	104.93	76.14	889.62	1057.53	319.11	26.43	296.14	+3	+5
19	276.24	104.96	76.52	889.65	1057.91	319.08	26.75	296.11	+1	+7
20	−276.63	+104.98	−76.91	+889.67	−1058.30	−319.06	−27.07	−296.09	−2	+7
21	277.01	105.00	77.29	889.69	1058.68	319.04	27.38	296.08	−5	+7
22	277.39	105.01	77.67	889.70	1059.06	319.03	27.70	296.07	−7	+5
23	277.77	105.02	78.05	889.71	1059.44	319.02	28.02	296.07	−8	+2
24	278.15	105.02	78.43	889.71	1059.82	319.02	28.33	296.07	−8	−1
25	−278.53	+105.02	−78.81	+889.71	−1060.20	−319.02	−28.65	−296.08	−6	−3
26	278.91	105.02	79.19	889.71	1060.58	319.02	28.96	296.09	−4	−6
27	279.29	105.01	79.57	889.70	1060.96	319.03	29.28	296.12	−1	−7
28	279.67	104.99	79.96	889.68	1061.34	319.05	29.60	296.15	+2	−7
29	280.05	104.97	80.34	889.66	1061.72	319.07	29.92	296.18	+5	−6
30	−280.43	+104.95	−80.72	+889.64	−1062.10	−319.09	−30.23	−296.22	+7	−4
Okt. 1	280.81	104.92	81.10	889.61	1062.48	319.12	30.55	296.27	+9	−1
2	281.19	104.88	81.48	889.57	1062.86	319.16	30.87	296.33	+9	+2
3	281.57	104.84	81.86	889.53	1063.24	319.20	31.19	296.39	+7	+5
4	281.95	104.80	82.24	889.49	1063.62	319.24	31.50	296.46	+4	+7
5	−282.33	+104.75	−82.62	+889.44	−1064.00	−319.29	−31.81	−296.53	+1	+7
6	282.71	104.70	83.00	889.39	1064.38	319.34	32.12	296.61	−2	+6
7	283.08	104.64	83.37	889.33	1064.76	319.40	32.43	296.69	−5	+3
8	283.46	104.58	83.75	889.27	1065.13	319.46	32.74	296.78	−6	−1
9	283.83	104.51	84.12	889.20	1065.51	319.53	33.05	296.88	−5	−4
10	−284.21	+104.43	−84.50	+889.12	−1065.88	−319.61	−33.35	−296.98	−3	−7
11	284.58	104.35	84.87	889.04	1066.25	319.69	33.65	297.09	0	−8
12	284.95	104.27	85.24	888.96	1066.61	319.77	33.95	297.20	+3	−6
13	285.32	104.18	85.61	888.87	1066.98	319.86	34.25	297.32	+5	−4
14	285.69	104.09	85.98	888.78	1067.35	319.95	34.55	297.44	+6	0
15	−286.06	+104.00	−86.35	+888.69	−1067.72	−320.05	−34.84	−297.57	+5	+3
16	286.42	103.90	86.71	888.59	1068.08	320.15	35.13	297.71	+2	+6
17	286.78	103.79	87.07	888.48	1068.44	320.26	35.42	297.85	−1	+8
18	287.14	103.68	87.43	888.37	1068.80	320.37	35.70	298.00	−4	+8
19	287.50	103.56	87.79	888.25	1069.16	320.49	35.99	298.15	−6	+6
20	−287.86	+103.44	−88.15	+888.13	−1069.52	−320.61	−36.27	−298.31	−8	+3
21	288.22	103.31	88.51	888.00	1069.88	320.74	36.55	298.48	−8	0
22	−288.57	+103.18	−88.86	+887.87	−1070.23	−320.87	−36.82	−298.65	−7	−3
Mittl. Ort	−259″.80	+ 78″.91	−59″.94	+863″.58	−1041″.60	−345″.01	−46″.36	−307″.45		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1939

Koordinaten der scheinbaren Örter für 12ʰ Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10ᵐ.56		BD +89° 3 Gr. 9ᵐ.06		BD +89° 37 Gr. 10ᵐ.06		CPD −89° 38 Gr. 9ᵐ.5		Kurzperiod. Nutationsgl.*)	
1939	x	y	x	y	x	y	x	y	in 0″.01	
Okt. 22	−288″.57	+103″.18	−88″.86	+887″.87	−1070″.23	−320″.87	−36″.82	−298″.65	−7	−3
23	288.92	103.05	89.21	887.74	1070.58	321.00	37.09	298.83	−5	−5
24	289.27	102.91	89.56	887.60	1070.93	321.14	37.36	299.01	−2	−6
25	289.62	102.77	89.91	887.46	1071.28	321.28	37.63	299.20	+1	−7
26	289.96	102.62	90.25	887.31	1071.62	321.43	37.89	299.39	+4	−6
27	−290.30	+102.46	−90.59	+887.15	−1071.96	−321.59	−38.15	−299.59	+6	−5
28	290.64	102.31	90.93	887.00	1072.30	321.74	38.40	299.79	+8	−2
29	290.98	102.14	91.27	886.83	1072.64	321.91	38.65	300.00	+8	+1
30	291.31	101.97	91.60	886.66	1072.97	322.08	38.89	300.21	+7	+4
31	291.64	101.80	91.93	886.49	1073.30	322.25	39.13	300.43	+5	+6
Nov. 1	−291.97	+101.62	−92.26	+886.31	−1073.63	−322.43	−39.37	−300.65	+2	+7
2	292.29	101.44	92.58	886.13	1073.96	322.61	39.60	300.88	−2	+6
3	292.62	101.25	92.91	885.94	1074.28	322.80	39.83	301.11	−5	+4
4	292.93	101.07	93.22	885.76	1074.60	322.99	40.06	301.35	−6	+1
5	293.25	100.87	93.54	885.56	1074.91	323.18	40.28	301.59	−6	−3
6	−293.56	+100.67	−93.85	+885.36	−1075.22	−323.38	−40.49	−301.83	−4	−6
7	293.87	100.47	94.16	885.16	1075.53	323.58	40.70	302.08	−1	−7
8	294.17	100.27	94.46	884.96	1075.84	323.79	40.91	302.33	+2	−7
9	294.47	100.05	94.76	884.74	1076.14	324.00	41.11	302.59	+5	−5
10	294.77	99.84	95.06	884.53	1076.44	324.22	41.30	302.85	+6	−2
11	−295.06	+ 99.62	−95.35	+884.31	−1076.73	−324.44	−41.49	−303.12	+6	+2
12	295.35	99.40	95.64	884.09	1077.02	324.66	41.68	303.39	+4	+5
13	295.63	99.17	95.93	883.87	1077.30	324.89	41.86	303.66	+1	+7
14	295.92	98.95	96.21	883.64	1077.59	325.12	42.03	303.94	−2	+8
15	296.19	98.71	96.49	883.41	1077.86	325.35	42.20	304.22	−5	+7
16	−296.46	+ 98.47	−96.76	+883.17	−1078.13	−325.59	−42.37	−304.51	−7	+5
17	296.73	98.23	97.03	882.93	1078.40	325.83	42.53	304.79	−8	+2
18	297.00	97.99	97.29	882.68	1078.67	326.08	42.68	305.09	−8	−1
19	297.25	97.73	97.55	882.43	1078.92	326.33	42.83	305.38	−6	−4
20	297.51	97.48	97.81	882.18	1079.18	326.59	42.97	305.68	−3	−6
21	−297.76	+ 97.22	−98.06	+881.92	−1079.43	−326.85	−43.10	−305.98	0	−7
22	298.01	96.96	98.31	881.66	1079.68	327.11	43.23	306.28	+3	−7
23	298.25	96.70	98.55	881.40	1079.92	327.37	43.36	306.59	+6	−6
24	298.48	96.43	98.79	881.13	1080.15	327.64	43.48	306.89	+8	−3
25	298.71	96.16	99.02	880.87	1080.38	327.91	43.59	307.20	+9	0
26	−298.94	+ 95.89	−99.24	+880.59	−1080.61	−328.19	−43.69	−307.52	+8	+3
27	299.16	95.61	99.47	880.32	1080.83	328.46	43.79	307.83	+6	+6
28	−299.37	+ 95.33	−99.68	+880.04	−1081.04	−328.75	−43.88	−308.15	+3	+7
Mittl. Ort	−259″.80	+ 78″.91	−59″.94	+863″.58	−1041″.60	−345″.01	−46″.36	−307″.45		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1939

Koordinaten der scheinbaren Örter für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Nutationsgl.*)	
1939	x	y	x	y	x	y	x	y	in $0''.01$	
Nov. 28	−299.37	+95.33	− 99.68	+880.04	−1081.04	−328.75	−43.88	−308.15	+3	+7
29	299.58	95.05	99.89	879.76	1081.25	329.03	43.97	308.47	−1	+7
30	299.79	94.76	100.10	879.47	1081.46	329.32	44.05	308.79	−4	+5
Dez. 1	299.99	94.47	100.30	879.18	1081.66	329.61	44.12	309.12	−6	+2
2	300.19	94.18	100.50	878.89	1081.86	329.90	44.19	309.44	−7	−2
3	−300.38	+93.89	−100.69	+878.60	−1082.05	−330.19	−44.25	−309.77	−5	−5
4	300.56	93.59	100.87	878.30	1082.23	330.49	44.30	310.10	−3	−7
5	300.74	93.29	101.05	878.00	1082.41	330.79	44.35	310.43	0	−7
6	300.91	92.99	101.22	877.70	1082.58	331.09	44.39	310.76	+3	−6
7	301.07	92.68	101.38	877.40	1082.74	331.40	44.43	311.09	+5	−3
8	−301.23	+92.38	−101.54	+877.09	−1082.90	−331.70	−44.46	−311.42	+6	+1
9	301.39	92.07	101.70	876.79	1083.06	332.01	44.48	311.76	+5	+4
10	301.54	91.76	101.85	876.47	1083.21	332.32	44.49	312.10	+2	+6
11	301.68	91.44	101.99	876.16	1083.35	332.64	44.50	312.44	0	+8
12	301.82	91.13	102.13	875.85	1083.49	332.95	44.50	312.78	−3	+7
13	−301.95	+90.81	−102.26	+875.53	−1083.62	−333.27	−44.50	−313.12	−6	+5
14	302.08	90.49	102.39	875.22	1083.75	333.59	44.49	313.45	−7	+3
15	302.20	90.17	102.51	874.90	1083.87	333.91	44.48	313.79	−8	0
16	302.31	89.85	102.62	874.58	1083.98	334.23	44.45	314.13	−7	−3
17	302.42	89.53	102.73	874.26	1084.09	334.55	44.42	314.47	−4	−5
18	−302.52	+89.21	−102.83	+873.93	−1084.19	−334.87	−44.39	−314.81	−2	−7
19	302.61	88.88	102.92	873.61	1084.28	335.20	44.35	315.15	+2	−7
20	302.70	88.55	103.01	873.28	1084.37	335.53	44.30	315.49	+5	−6
21	302.78	88.22	103.09	872.95	1084.45	335.86	44.24	315.83	+7	−4
22	302.86	87.89	103.17	872.62	1084.53	336.19	44.18	316.17	+9	−1
23	−302.93	+87.56	−103.24	+872.30	−1084.60	−336.52	−44.11	−316.50	+9	+2
24	302.99	87.23	103.30	871.97	1084.66	336.84	44.04	316.84	+7	+5
25	303.04	86.89	103.35	871.64	1084.72	337.17	43.96	317.18	+4	+7
26	303.09	86.56	103.40	871.31	1084.77	337.51	43.87	317.51	+1	+7
27	303.14	86.23	103.45	870.98	1084.81	337.84	43.78	317.84	−3	+6
28	−303.17	+85.90	−103.48	+870.65	−1084.85	−338.17	−43.68	−318.17	−6	+3
29	303.20	85.57	103.51	870.32	1084.88	338.51	43.57	318.50	−7	−1
30	303.22	85.24	103.53	869.98	1084.90	338.84	43.46	318.83	−7	−4
31	303.24	84.91	103.55	869.65	1084.92	339.18	43.34	319.16	−5	−6
32	−303.25	+84.58	−103.56	+869.32	−1084.93	−339.51	−43.22	−319.49	−1	−8
Mittl. Ort	−259.80	+78.91	− 59.94	+863.58	−1041.60	−345.01	−46.36	−307.45		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Formeln

zur Reduktion auf den scheinbaren Ort

$$A = t - (0.34213 + 0.00034\,T)\sin\Omega + 0.00415\sin 2\Omega - 0.02525\sin 2L_\odot$$
$$+ 0.00250\sin M_\odot - 0.00099\sin(2L_\odot + M_\odot) + 0.00042\sin(2L_\odot - M_\odot)$$
$$+ 0.00024\sin(2L_\odot - \Omega) + 0.00010\sin(2L_☾ - 2M_☾ - \Omega)$$
$$+ 0.00008\sin(2L_\odot - 2L_☾ + 2M_☾)$$

$$A' = -0.00405\sin 2L_☾ + 0.00135\sin M_☾ - 0.00067\sin(2L_☾ - \Omega)$$
$$- 0.00052\sin(2L_☾ + M_☾) + 0.00030\sin(2L_☾ - 2L_\odot - M_☾)$$
$$+ 0.00022\sin(2L_☾ - M_☾) + 0.00012\sin(2L_☾ - 2L_\odot)$$
$$+ 0.00012\sin(M_☾ + \Omega) + 0.00012\sin(M_☾ - \Omega)$$
$$- 0.00010\sin(4L_☾ - 2L_\odot - M_☾) - 0.00008\sin(2L_☾ + M_☾ - \Omega)$$

$$B = -(9''.210 + 0''.001\,T)\cos\Omega + 0''.090\cos 2\Omega - 0''.551\cos 2L_\odot$$
$$- 0''.022\cos(2L_\odot + M_\odot) + 0''.009\cos(2L_\odot - M_\odot)$$
$$+ 0''.007\cos(2L_\odot - \Omega) + 0''.003\cos(2L_☾ - 2M_☾ - \Omega)$$

$$B' = -0''.089\cos 2L_☾ - 0''.018\cos(2L_☾ - \Omega) - 0''.011\cos(2L_☾ + M_☾)$$
$$+ 0''.005\cos(2L_☾ - M_☾) + 0''.003\cos(M_☾ + \Omega) - 0''.003\cos(M_☾ - \Omega)$$
$$- 0''.002\cos(4L_☾ - 2L_\odot - M_☾) - 0''.002\cos(2L_☾ + M_☾ - \Omega)$$

$$C = -20''.47\cos\odot\cos\varepsilon$$

$$D = -20''.47\sin\odot$$

$$E = -(0^s.0029 - 0^s.0004\,T)\sin\Omega$$

T Zeit seit 1900.0 in Einheiten von 100 tropischen Jahren,
t Zeit seit Beginn des annus fictus in Bruchteilen des tropischen Jahres;

$t = 0$ für 1939 Januar $1^d.2592$ Welt-Zeit.

$a = m + {}^1/_{15}\,n\sin\alpha\,\mathrm{tg}\,\delta$	$a' = n\cos\alpha$
$b = {}^1/_{15}\cos\alpha\,\mathrm{tg}\,\delta$	$b' = -\sin\alpha$
$c = {}^1/_{15}\cos\alpha\sec\delta$	$c' = \mathrm{tg}\,\varepsilon\cos\delta - \sin\alpha\sin\delta$
$d = {}^1/_{15}\sin\alpha\sec\delta$	$d' = \cos\alpha\sin\delta$

Für 1939.0 gilt: $m = +3^s.0731$, $n = +20''.044$, $\varepsilon = 23^\circ\,26'\,49''.99$

$$\alpha_{app.} = \alpha_{1939.0} + t\mu_\alpha + Aa + Bb + Cc + Dd + E + [A'a + B'b]$$
$$\delta_{app.} = \delta_{1939.0} + t\mu_\delta + Aa' + Bb' + Cc' + Dd' + [A'a' + B'b']$$

μ_α, μ_δ jährliche Eigenbewegung in Rektaszension, bez. Deklination.

Setzt man

$f = mA + E$	$f' = mA'$	$i = C\,\mathrm{tg}\,\varepsilon$
$g\sin G = B$	$g'\sin G' = B'$	$h\sin H = C$
$g\cos G = nA$	$g'\cos G' = nA'$	$h\cos H = D,$

so wird:

$$\alpha_{app.} = \alpha_{1939.0} + t\mu_\alpha + f + {}^1/_{15}\,g\sin(G+\alpha)\,\mathrm{tg}\,\delta + {}^1/_{15}\,h\sin(H+\alpha)\sec\delta$$
$$+ [f' + {}^1/_{15}\,g'\sin(G'+\alpha)\,\mathrm{tg}\,\delta]$$

$$\delta_{app.} = \delta_{1939.0} + t\mu_\delta + g\cos(G+\alpha) + h\cos(H+\alpha)\sin\delta + i\cos\delta$$
$$+ [g'\cos(G'+\alpha)]$$

Reduktionsgrößen 1939

für 12^h Sternzeit Greenwich

Welt-Zeit		t	log A	log B	log C	log D	E
1939		s					s
Jan.	0.2	−0.0028	9.39905	0.84924	0.46255n	1.30589	+0.0019
	10.2	+0.0245	9.45368	0.84739	0.78746n	1.28664	19
	20.2	0.0518	9.49944	0.84205	0.96213n	1.25205	19
	30.1	0.0791	9.53738	0.83423	1.07577n	1.19945	18
Febr.	9.1	0.1064	9.56858	0.82530	1.15448n	1.12402	18
	19.1	0.1337	9.59415	0.81684	1.20919n	1.01607	+0.0018
März	1.1	0.1610	9.61536	0.81043	1.24546n	0.85394	18
	11.0	0.1883	9.63345	0.80754	1.26644n	0.56926	18
	21.0	0.2156	9.64968	0.80882	1.27368n	9.26007	17
	31.0	0.2429	9.66524	0.81451	1.26788n	0.52270n	17
April	10.0	0.2702	9.68109	0.82413	1.24888n	0.82789n	+0.0017
	19.9	0.2975	9.69793	0.83658	1.21569n	0.99603n	17
	29.9	0.3248	9.71615	0.85071	1.16625n	1.10680n	17
Mai	9.9	0.3521	9.73582	0.86516	1.09649n	1.18438n	16
	19.8	0.3794	9.75670	0.87852	0.99861n	1.23925n	16
	29.8	0.4067	9.77840	0.89009	0.85612n	1.27678n	+0.0016
Juni	8.8	0.4340	9.80035	0.89883	0.62335n	1.29999n	16
	18.8	0.4613	9.82199	0.90450	0.04689n	1.31035n	16
	28.7	0.4886	9.84279	0.90682	0.30103	1.30863n	15
Juli	8.7	0.5160	9.86229	0.90601	0.70398	1.29478n	15
	18.7	0.5433	9.88014	0.90238	0.90179	1.26792n	+0.0015
	28.7	0.5706	9.89615	0.89658	1.02849	1.22626n	15
Aug.	7.6	0.5979	9.91024	0.88941	1.11704	1.16658n	15
	17.6	0.6252	9.92247	0.88184	1.18038	1.08264n	14
	27.6	0.6525	9.93301	0.87506	1.22508	0.96237n	14
Sept.	6.5	0.6798	9.94218	0.87017	1.25438	0.77619n	+0.0014
	16.5	0.7071	9.95036	0.86823	1.27019	0.41313n	14
	26.5	0.7344	9.95804	0.86994	1.27328	9.94939	14
Okt.	6.5	0.7617	9.96568	0.87529	1.26361	0.63939	13
	16.4	0.7890	9.97375	0.88395	1.24035	0.88767	13
	26.4	0.8163	9.98263	0.89504	1.20172	1.03635	+0.0013
Nov.	5.4	0.8436	9.99256	0.90752	1.14439	1.13707	13
	15.4	0.8709	0.00362	0.92018	1.06228	1.20812	13
	25.3	0.8982	0.01570	0.93156	0.94325	1.25766	12
Dez.	5.3	0.9255	0.02854	0.94077	0.75778	1.28992	12
	15.3	0.9528	0.04177	0.94694	0.39585	1.30726	+0.0012
	25.2	0.9801	0.05493	0.94973	9.92065n	1.31069	12
	35.2	1.0074	0.06763	0.94905	0.61606n	1.30036	+0.0011

Reduktionsgrößen 1939

Tag	0h Welt-Zeit								
	Sternzeit Greenw.	t	f	log g	G	log h	H	log i	i
1939	h	s	s		h m		h m		"
Jan. 0	6.6	−0.0035	+0.770	0.9375	3 38.6	1.3103	23 28.2	0.0892n	−1.228
1	6.6	−0.0007	0.780	0.9395	3 37.2	1.3101	23 24.4	0.1370n	1.371
2	6.7	+0.0020	0.791	0.9415	3 35.7	1.3099	23 20.6	0.1798n	1.513
3	6.8	0.0048	0.801	0.9434	3 34.3	1.3097	23 16.9	0.2188n	1.655
4	6.8	0.0075	0.812	0.9453	3 32.8	1.3094	23 13.1	0.2543n	1.796
5	6.9	0.0102	0.822	0.9472	3 31.4	1.3092	23 9.3	0.2871n	1.937
6	7.0	0.0130	+0.833	0.9491	3 29.9	1.3089	23 5.6	0.3176n	−2.078
7	7.0	0.0157	0.843	0.9510	3 28.5	1.3086	23 1.8	0.3460n	2.218
8	7.1	0.0185	0.853	0.9528	3 27.1	1.3082	22 58.0	0.3724n	2.357
9	7.2	0.0212	0.863	0.9546	3 25.7	1.3079	22 54.2	0.3971n	2.495
10	7.2	0.0239	0.873	0.9564	3 24.3	1.3075	22 50.4	0.4205n	2.633
11	7.3	0.0267	0.883	0.9581	3 22.9	1.3071	22 46.6	0.4425n	2.770
12	7.4	0.0294	+0.893	0.9599	3 21.5	1.3067	22 42.8	0.4631n	−2.905
13	7.4	0.0321	0.903	0.9616	3 20.1	1.3063	22 39.0	0.4829n	3.040
14	7.5	0.0349	0.913	0.9632	3 18.8	1.3058	22 35.1	0.5016n	3.174
15	7.6	0.0376	0.923	0.9649	3 17.4	1.3054	22 31.3	0.5194n	3.307
16	7.6	0.0404	0.933	0.9665	3 16.1	1.3049	22 27.5	0.5364n	3.439
17	7.7	0.0431	0.942	0.9681	3 14.8	1.3044	22 23.6	0.5525n	3.569
18	7.8	0.0458	+0.952	0.9697	3 13.5	1.3039	22 19.8	0.5681n	−3.699
19	7.8	0.0486	0.961	0.9712	3 12.2	1.3034	22 15.9	0.5829n	3.827
20	7.9	0.0513	0.971	0.9728	3 10.9	1.3029	22 12.0	0.5970n	3.954
21	8.0	0.0540	0.980	0.9743	3 9.6	1.3023	22 8.1	0.6107n	4.080
22	8.0	0.0568	0.989	0.9758	3 8.3	1.3018	22 4.2	0.6238n	4.205
23	8.1	0.0595	0.998	0.9773	3 7.1	1.3012	22 0.3	0.6363n	4.328
24	8.2	0.0623	+1.007	0.9787	3 5.9	1.3006	21 56.4	0.6484n	−4.450
25	8.2	0.0650	1.016	0.9801	3 4.7	1.3000	21 52.5	0.6599n	4.570
26	8.3	0.0677	1.025	0.9815	3 3.5	1.2994	21 48.6	0.6711n	4.689
27	8.4	0.0705	1.034	0.9829	3 2.3	1.2988	21 44.6	0.6819n	4.807
28	8.4	0.0732	1.043	0.9843	3 1.1	1.2982	21 40.7	0.6921n	4.922
29	8.5	0.0760	1.051	0.9857	2 59.9	1.2976	21 36.7	0.7021n	5.036
30	8.6	0.0787	+1.060	0.9870	2 58.8	1.2969	21 32.7	0.7117n	−5.149
31	8.6	0.0814	1.068	0.9883	2 57.6	1.2963	21 28.8	0.7210n	5.260
Febr. 1	8.7	0.0842	1.076	0.9896	2 56.5	1.2956	21 24.8	0.7300n	5.370
2	8.8	0.0869	1.084	0.9908	2 55.4	1.2950	21 20.8	0.7386n	5.478
3	8.8	0.0896	1.092	0.9921	2 54.3	1.2943	21 16.7	0.7469n	5.584
4	8.9	0.0924	1.100	0.9933	2 53.3	1.2937	21 12.7	0.7550n	5.688
5	8.9	0.0951	+1.108	0.9945	2 52.2	1.2930	21 8.7	0.7627n	−5.790
6	9.0	0.0979	1.116	0.9958	2 51.2	1.2924	21 4.6	0.7701n	5.890
7	9.1	0.1006	1.124	0.9970	2 50.2	1.2917	21 0.6	0.7774n	5.989
8	9.1	0.1033	1.131	0.9981	2 49.2	1.2910	20 56.5	0.7843n	6.085
9	9.2	0.1061	1.139	0.9993	2 48.2	1.2904	20 52.4	0.7910n	6.180
10	9.3	0.1088	+1.146	1.0005	2 47.2	1.2897	20 48.3	0.7975n	−6.273

Tag	0ʰ Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1939.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1939	in 0.ˢ001	in 0.″01	ʰ	″	″	in 0.″01	23° 26′ ″	″	in 0.″01	in 0.001	
Jan. 0	−14	+10	13.9	−0.18	+12.76	−23	49.99	−7.07	+5	38	89
1	−16	10	12.6	−0.04	12.79	−26	49.98	7.07	+2	38	89
2	−15	10	11.1	+0.10	12.83	−25	49.98	7.07	−2	38	89
3	−12	10	9.5	0.24	12.86	−19	49.98	7.07	−6	38	89
4	− 6	9	7.8	0.38	12.90	−10	49.98	7.06	−8	38	89
5	+ 1	8	5.7	0.51	12.93	+ 2	49.98	7.06	−8	39	89
6	+ 7	+ 8	3.5	+0.65	+12.96	+12	49.98	−7.06	−6	39	89
7	+12	8	1.3	0.79	12.99	+19	49.98	7.05	−3	39	89
8	+14	9	23.4	0.93	13.02	+22	49.98	7.05	+1	39	89
9	+12	10	21.8	1.06	13.05	+20	49.97	7.04	+5	39	89
10	+ 8	9	20.4	1.20	13.08	+14	49.97	7.04	+7	39	89
11	+ 3	8	19.0	1.34	13.11	+ 5	49.97	7.03	+8	40	89
12	− 2	+ 7	17.3	+1.48	+13.13	− 3	49.97	−7.03	+6	40	88
13	− 5	5	14.9	1.61	13.16	− 9	49.97	7.02	+3	40	88
14	− 7	5	11.9	1.75	13.18	−11	49.97	7.01	0	40	88
15	− 6	6	9.3	1.89	13.21	−10	49.97	7.00	−4	40	88
16	− 4	7	7.5	2.03	13.23	− 6	49.97	6.99	−6	40	88
17	0	8	6.1	2.16	13.25	0	49.96	6.98	−7	41	88
18	+ 3	+ 8	4.8	+2.30	+13.27	+ 6	49.96	−6.97	−7	41	88
19	+ 6	8	3.7	2.44	13.28	+11	49.96	6.96	−6	41	88
20	+ 9	7	2.4	2.58	13.30	+14	49.96	6.95	−4	41	88
21	+10	6	0.9	2.71	13.31	+15	49.96	6.94	−1	41	87
22	+ 9	6	23.0	2.85	13.33	+14	49.96	6.93	+2	41	87
23	+ 6	6	20.9	2.99	13.34	+11	49.96	6.92	+4	41	87
24	+ 3	+ 7	19.0	+3.13	+13.35	+ 5	49.96	−6.91	+6	42	87
25	− 2	8	17.4	3.27	13.36	− 3	49.95	6.89	+8	42	87
26	− 7	9	15.8	3.40	13.36	−12	49.95	6.88	+7	42	87
27	−12	10	14.4	3.54	13.37	−19	49.95	6.87	+6	42	87
28	−15	10	13.1	3.68	13.37	−24	49.95	6.86	+3	42	87
29	−16	10	11.7	3.82	13.38	−26	49.95	6.84	−1	42	87
30	−14	+10	10.2	+3.95	+13.38	−22	49.95	−6.83	−4	42	86
31	− 9	9	8.7	4.09	13.38	−15	49.95	6.82	−7	42	86
Febr. 1	− 3	8	6.8	4.23	13.38	− 5	49.95	6.80	−8	43	86
2	+ 4	7	4.7	4.37	13.37	+ 6	49.94	6.79	−7	43	86
3	+ 9	7	2.3	4.50	13.37	+15	49.94	6.77	−4	43	86
4	+12	8	0.1	4.64	13.36	+20	49.94	6.76	0	43	86
5	+12	+ 9	22.3	+4.78	+13.35	+20	49.94	−6.75	+4	43	86
6	+ 9	9	20.8	4.92	13.34	+15	49.94	6.73	+7	43	85
7	+ 5	8	19.4	5.06	13.33	+ 8	49.94	6.72	+8	43	85
8	0	7	17.8	5.19	13.31	− 1	49.94	6.70	+7	43	85
9	− 5	6	15.8	5.33	13.30	− 7	49.93	6.69	+5	44	85
10	− 7	+ 5	13.1	+5.47	+13.28	−11	49.93	−6.68	+1	44	85

Reduktionsgrößen 1939

Tag	0h Welt-Zeit								
	Sternzeit Greenw.	t	f	log g	G	log h	H	log i	i
1939	h	s	s		h m		h m		"
Febr. 10	9.3	0.1088	+1.146	1.0005	2 47.2	1.2897	20 48.3	0.7975n	−6.273
11	9.3	0.1115	1.154	1.0016	2 46.2	1.2890	20 44.2	0.8037n	6.364
12	9.4	0.1143	1.161	1.0027	2 45.3	1.2884	20 40.1	0.8097n	6.452
13	9.5	0.1170	1.168	1.0038	2 44.4	1.2877	20 36.0	0.8155n	6.539
14	9.5	0.1198	1.175	1.0050	2 43.5	1.2871	20 31.8	0.8211n	6.624
15	9.6	0.1225	1.181	1.0061	2 42.6	1.2865	20 27.7	0.8265n	6.707
16	9.7	0.1252	+1.188	1.0072	2 41.8	1.2858	20 23.5	0.8317n	−6.787
17	9.7	0.1280	1.195	1.0082	2 40.9	1.2852	20 19.4	0.8366n	6.865
18	9.8	0.1307	1.201	1.0093	2 40.1	1.2846	20 15.2	0.8414n	6.941
19	9.9	0.1334	1.208	1.0103	2 39.3	1.2840	20 11.0	0.8460n	7.015
20	9.9	0.1362	1.214	1.0114	2 38.5	1.2834	20 6.8	0.8505n	7.087
21	10.0	0.1389	1.221	1.0125	2 37.7	1.2828	20 2.6	0.8547n	7.156
22	10.1	0.1417	+1.227	1.0135	2 36.9	1.2822	19 58.4	0.8588n	−7.224
23	10.1	0.1444	1.233	1.0146	2 36.2	1.2817	19 54.2	0.8627n	7.289
24	10.2	0.1471	1.239	1.0156	2 35.5	1.2811	19 49.9	0.8664n	7.352
25	10.3	0.1499	1.245	1.0166	2 34.8	1.2806	19 45.7	0.8699n	7.412
26	10.3	0.1526	1.251	1.0176	2 34.1	1.2801	19 41.4	0.8733n	7.470
27	10.4	0.1554	1.257	1.0187	2 33.4	1.2796	19 37.2	0.8766n	7.526
28	10.5	0.1581	+1.263	1.0197	2 32.8	1.2791	19 32.9	0.8796n	−7.579
März 1	10.5	0.1608	1.268	1.0207	2 32.1	1.2786	19 28.6	0.8826n	7.631
2	10.6	0.1636	1.274	1.0217	2 31.5	1.2782	19 24.3	0.8854n	7.680
3	10.7	0.1663	1.280	1.0228	2 30.9	1.2777	19 20.0	0.8880n	7.726
4	10.7	0.1690	1.285	1.0238	2 30.3	1.2773	19 15.8	0.8904n	7.770
5	10.8	0.1718	1.291	1.0248	2 29.8	1.2769	19 11.5	0.8927n	7.811
6	10.9	0.1745	+1.296	1.0259	2 29.2	1.2766	19 7.2	0.8949n	−7.850
7	10.9	0.1773	1.302	1.0269	2 28.7	1.2762	19 2.9	0.8969n	7.887
8	11.0	0.1800	1.307	1.0279	2 28.2	1.2759	18 58.5	0.8988n	7.921
9	11.1	0.1827	1.312	1.0289	2 27.7	1.2756	18 54.2	0.9005n	7.953
10	11.1	0.1855	1.317	1.0300	2 27.2	1.2753	18 49.9	0.9021n	7.982
11	11.2	0.1882	1.322	1.0310	2 26.7	1.2750	18 45.6	0.9036n	8.010
12	11.2	0.1909	+1.328	1.0321	2 26.3	1.2748	18 41.2	0.9050n	−8.035
13	11.3	0.1937	1.333	1.0332	2 25.9	1.2746	18 36.9	0.9062n	8.057
14	11.4	0.1964	1.338	1.0343	2 25.5	1.2744	18 32.6	0.9072n	8.076
15	11.4	0.1992	1.343	1.0354	2 25.1	1.2742	18 28.2	0.9081n	8.093
16	11.5	0.2019	1.348	1.0364	2 24.7	1.2741	18 23.9	0.9089n	8.108
17	11.6	0.2046	1.353	1.0375	2 24.3	1.2739	18 19.6	0.9096n	8.121
18	11.6	0.2074	+1.358	1.0387	2 24.0	1.2738	18 15.2	0.9101n	−8.131
19	11.7	0.2101	1.363	1.0398	2 23.6	1.2738	18 10.9	0.9105n	8.138
20	11.8	0.2128	1.368	1.0410	2 23.3	1.2737	18 6.6	0.9108n	8.143
21	11.8	0.2156	1.373	1.0421	2 23.0	1.2737	18 2.2	0.9109n	8.145
22	11.9	0.2183	1.378	1.0432	2 22.7	1.2737	17 57.9	0.9109n	8.145
23	12.0	0.2211	+1.383	1.0444	2 22.4	1.2737	17 53.6	0.9108n	−8.143

Tag	0h Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1939.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1939	in 0.001 s	in 0.01"	h	"	"	in 0.01"	23° 26' "	"	in 0.01"	in 0.001	
Febr. 10	− 7	+ 5	13.1	+ 5.47	+13.28	−11	49.93	−6.68	+1	44	85
11	− 7	5	10.1	5.61	13.26	−11	49.93	6.66	−2	44	85
12	− 4	6	7.8	5.75	13.24	− 7	49.93	6.65	−6	44	85
13	− 1	7	6.3	5.88	13.22	− 1	49.93	6.63	−7	44	85
14	+ 3	8	5.0	6.02	13.19	+ 5	49.93	6.62	−8	44	84
15	+ 7	8	3.9	6.16	13.17	+11	49.93	6.61	−7	44	84
16	+ 9	+ 8	2.6	+ 6.30	+13.14	+15	49.93	−6.60	−5	44	84
17	+10	7	1.2	6.43	13.12	+17	49.92	6.58	−2	44	84
18	+10	6	23.6	6.57	13.09	+16	49.92	6.57	+1	45	84
19	+ 8	6	21.7	6.71	13.06	+13	49.92	6.56	+4	45	84
20	+ 4	7	19.8	6.85	13.02	+ 7	49.92	6.55	+6	45	84
21	0	7	18.1	6.98	12.99	0	49.92	6.54	+7	45	84
22	− 5	+ 8	16.5	+ 7.12	+12.95	− 8	49.92	−6.53	+7	45	84
23	−10	9	14.9	7.26	12.92	−16	49.92	6.52	+6	45	83
24	−13	9	13.5	7.40	12.88	−22	49.92	6.51	+4	45	83
25	−15	10	12.2	7.53	12.84	−25	49.91	6.50	0	45	83
26	−14	10	10.8	7.67	12.80	−23	49.91	6.49	−3	45	83
27	−11	9	9.3	7.81	12.76	−18	49.91	6.48	−6	46	83
28	− 5	+ 8	7.7	+ 7.95	+12.71	− 9	49.91	−6.47	−8	46	83
März 1	+ 1	8	5.7	8.08	12.67	+ 1	49.91	6.46	−7	46	83
2	+ 6	7	3.4	8.22	12.62	+10	49.91	6.46	−5	46	83
3	+10	7	0.9	8.36	12.58	+16	49.91	6.45	−2	46	83
4	+11	7	22.8	8.50	12.53	+18	49.91	6.45	+2	46	83
5	+ 9	8	21.0	8.64	12.48	+15	49.90	6.44	+6	46	83
6	+ 5	+ 8	19.6	+ 8.77	+12.43	+ 9	49.90	−6.44	+8	46	83
7	0	8	18.1	8.91	12.38	+ 1	49.90	6.43	+8	46	82
8	− 4	6	16.4	9.05	12.33	− 7	49.90	6.43	+6	47	82
9	− 7	5	14.1	9.19	12.28	−11	49.90	6.42	+3	47	82
10	− 8	5	11.1	9.32	12.23	−12	49.90	6.42	−1	47	82
11	− 6	6	8.6	9.46	12.18	− 9	49.90	6.42	−5	47	82
12	− 2	+ 7	6.8	+ 9.60	+12.12	− 4	49.90	−6.42	−7	47	82
13	+ 2	8	5.5	9.74	12.07	+ 3	49.89	6.42	−8	47	82
14	+ 6	8	4.2	9.87	12.02	+ 9	49.89	6.42	−7	47	82
15	+ 9	8	2.9	10.01	11.96	+15	49.89	6.42	−6	47	82
16	+11	8	1.6	10.15	11.91	+17	49.89	6.42	−3	48	82
17	+11	7	0.0	10.29	11.85	+18	49.89	6.42	0	48	82
18	+ 9	+ 7	22.1	+10.42	+11.79	+15	49.89	−6.43	+3	48	82
19	+ 6	7	20.4	10.56	11.74	+10	49.89	6.43	+5	48	82
20	+ 2	7	18.7	10.70	11.68	+ 3	49.88	6.43	+7	48	82
21	− 3	8	17.0	10.84	11.62	− 5	49.88	6.44	+8	48	82
22	− 8	8	15.5	10.97	11.57	−13	49.88	6.44	+7	48	82
23	−12	+ 9	14.1	+11.11	+11.51	−19	49.88	−6.45	+4	48	82

Tag		0^h^ Welt-Zeit								
		Sternzeit Greenw.	t	f	log g	G	log h	H	log i	i
1939		h	a	"		h m		h m		"
März	23	12.0	0.2211	+1.383	1.0444	2 22.4	1.2737	17 53.6	0.9108_n	−8.143
	24	12.0	0.2238	1.388	1.0456	2 22.1	1.2738	17 49.3	0.9105_n	8.138
	25	12.1	0.2265	1.393	1.0469	2 21.9	1.2738	17 44.9	0.9101_n	8.131
	26	12.2	0.2293	1.398	1.0481	2 21.6	1.2739	17 40.6	0.9096_n	8.121
	27	12.2	0.2320	1.403	1.0493	2 21.4	1.2740	17 36.3	0.9089_n	8.108
	28	12.3	0.2348	1.408	1.0506	2 21.1	1.2742	17 32.0	0.9082_n	8.094
	29	12.4	0.2375	+1.413	1.0518	2 20.9	1.2744	17 27.7	0.9073_n	−8.077
	30	12.4	0.2402	1.418	1.0531	2 20.7	1.2746	17 23.4	0.9062_n	8.058
	31	12.5	0.2430	1.423	1.0544	2 20.5	1.2748	17 19.1	0.9051_n	8.037
April	1	12.6	0.2457	1.428	1.0558	2 20.3	1.2750	17 14.8	0.9037_n	8.012
	2	12.6	0.2484	1.433	1.0571	2 20.1	1.2752	17 10.6	0.9023_n	7.986
	3	12.7	0.2512	1.438	1.0584	2 19.9	1.2755	17 6.3	0.9007_n	7.957
	4	12.8	0.2539	+1.444	1.0597	2 19.8	1.2758	17 2.1	0.8991_n	−7.926
	5	12.8	0.2567	1.449	1.0611	2 19.6	1.2762	16 57.8	0.8972_n	7.893
	6	12.9	0.2594	1.454	1.0625	2 19.5	1.2765	16 53.6	0.8953_n	7.857
	7	13.0	0.2621	1.460	1.0639	2 19.3	1.2769	16 49.3	0.8932_n	7.819
	8	13.0	0.2649	1.465	1.0654	2 19.2	1.2773	16 45.1	0.8909_n	7.778
	9	13.1	0.2676	1.470	1.0668	2 19.1	1.2777	16 40.9	0.8885_n	7.735
	10	13.2	0.2703	+1.476	1.0683	2 18.9	1.2781	16 36.7	0.8860_n	−7.691
	11	13.2	0.2731	1.482	1.0698	2 18.8	1.2785	16 32.5	0.8833_n	7.644
	12	13.3	0.2758	1.487	1.0713	2 18.7	1.2790	16 28.3	0.8805_n	7.594
	13	13.4	0.2786	1.493	1.0728	2 18.6	1.2794	16 24.2	0.8775_n	7.542
	14	13.4	0.2813	1.499	1.0743	2 18.5	1.2799	16 20.0	0.8744_n	7.489
	15	13.5	0.2840	1.504	1.0758	2 18.4	1.2804	16 15.9	0.8712_n	7.434
	16	13.5	0.2868	+1.510	1.0774	2 18.3	1.2809	16 11.7	0.8678_n	−7.375
	17	13.6	0.2895	1.516	1.0789	2 18.2	1.2814	16 7.6	0.8642_n	7.315
	18	13.7	0.2922	1.522	1.0805	2 18.1	1.2820	16 3.5	0.8605_n	7.253
	19	13.7	0.2950	1.528	1.0821	2 18.0	1.2825	15 59.4	0.8567_n	7.189
	20	13.8	0.2977	1.535	1.0838	2 17.9	1.2831	15 55.3	0.8526_n	7.122
	21	13.9	0.3005	1.541	1.0854	2 17.8	1.2837	15 51.3	0.8484_n	7.054
	22	13.9	0.3032	+1.547	1.0871	2 17.7	1.2842	15 47.2	0.8440_n	−6.983
	23	14.0	0.3059	1.553	1.0887	2 17.6	1.2848	15 43.2	0.8395_n	6.911
	24	14.1	0.3087	1.560	1.0904	2 17.5	1.2854	15 39.1	0.8349_n	6.837
	25	14.1	0.3114	1.566	1.0921	2 17.4	1.2860	15 35.1	0.8300_n	6.761
	26	14.2	0.3141	1.573	1.0938	2 17.3	1.2866	15 31.1	0.8250_n	6.683
	27	14.3	0.3169	1.580	1.0956	2 17.2	1.2873	15 27.1	0.8197_n	6.603
	28	14.3	0.3196	+1.587	1.0973	2 17.1	1.2879	15 23.1	0.8142_n	−6.520
	29	14.4	0.3224	1.594	1.0990	2 17.0	1.2885	15 19.2	0.8086_n	6.436
	30	14.5	0.3251	1.601	1.1008	2 16.8	1.2891	15 15.2	0.8028_n	6.351
Mai	1	14.5	0.3278	1.608	1.1025	2 16.7	1.2898	15 11.3	0.7969_n	6.265
	2	14.6	0.3306	1.615	1.1043	2 16.6	1.2904	15 7.4	0.7908_n	6.177
	3	14.7	0.3333	+1.622	1.1061	2 16.5	1.2910	15 3.5	0.7843_n	−6.085

Tag	0h Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1939.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1939	in 0.s001	in 0."01	h	"	"	in 0."01	23°26' "	"	in 0."01	in 0.001	
März 23	−12	+9	14.1	+11.11	+11.51	−19	49.88	−6.45	+4	48	82
24	−14	9	12.6	11.25	11.45	−23	49.88	6.46	+1	49	82
25	−14	9	11.1	11.39	11.40	−22	49.88	6.46	−2	49	82
26	−11	9	9.6	11.53	11.34	−18	49.88	6.47	−5	49	82
27	− 7	8	8.0	11.66	11.29	−11	49.88	6.48	−7	49	82
28	− 1	7	6.2	11.80	11.23	− 1	49.87	6.49	−7	49	82
29	+ 5	+6	4.2	+11.94	+11.18	+ 8	49.87	−6.50	−6	49	82
30	+ 9	6	1.8	12.08	11.12	+14	49.87	6.51	−3	49	82
31	+10	7	23.6	12.21	11.07	+17	49.87	6.52	+1	50	82
April 1	+ 9	8	21.6	12.35	11.01	+15	49.87	6.54	+4	50	82
2	+ 6	8	19.9	12.49	10.96	+10	49.87	6.55	+7	50	82
3	+ 1	8	18.4	12.63	10.91	+ 2	49.87	6.56	+8	50	82
4	− 3	+7	16.8	+12.76	+10.86	− 5	49.87	−6.57	+7	50	82
5	− 7	6	14.8	12.90	10.80	−11	49.86	6.59	+4	50	82
6	− 8	5	12.3	13.04	10.75	−13	49.86	6.60	0	50	83
7	− 7	6	9.7	13.18	10.70	−12	49.86	6.62	−3	51	83
8	− 4	7	7.7	13.31	10.65	− 7	49.86	6.63	−6	51	83
9	0	8	6.1	13.45	10.61	0	49.86	6.65	−8	51	83
10	+ 4	+8	4.8	+13.59	+10.56	+ 7	49.86	−6.67	−8	51	83
11	+ 8	8	3.5	13.73	10.51	+13	49.86	6.69	−6	51	83
12	+10	8	2.1	13.86	10.47	+17	49.86	6.70	−4	51	83
13	+11	7	0.6	14.00	10.42	+18	49.85	6.72	−1	52	83
14	+10	7	22.9	14.14	10.38	+17	49.85	6.74	+2	52	83
15	+ 7	7	21.0	14.28	10.33	+12	49.85	6.76	+5	52	83
16	+ 3	+7	19.2	+14.41	+10.29	+ 6	49.85	−6.78	+7	52	83
17	− 1	8	17.6	14.55	10.25	− 2	49.85	6.80	+8	52	84
18	− 6	8	16.0	14.69	10.21	−10	49.85	6.82	+7	53	84
19	−10	9	14.6	14.83	10.18	−17	49.85	6.84	+5	53	84
20	−13	9	13.1	14.96	10.14	−21	49.85	6.87	+2	53	84
21	−13	9	11.6	15.10	10.10	−22	49.84	6.89	−1	53	84
22	−11	+8	10.0	+15.24	+10.07	−18	49.84	−6.91	−4	53	84
23	− 7	8	8.3	15.38	10.03	−12	49.84	6.93	−7	54	84
24	− 2	7	6.5	15.51	10.00	− 3	49.84	6.95	−7	54	84
25	+ 4	7	4.5	15.65	9.97	+ 7	49.84	6.98	−6	54	84
26	+ 8	7	2.3	15.79	9.94	+14	49.84	7.00	−4	54	84
27	+11	7	0.1	15.93	9.91	+18	49.84	7.02	0	54	85
28	+10	+8	22.1	+16.06	+ 9.89	+17	49.83	−7.05	+3	55	85
29	+ 7	8	20.5	16.20	9.86	+12	49.83	7.07	+6	55	85
30	+ 3	8	18.9	16.34	9.84	+ 4	49.83	7.09	+8	55	85
Mai 1	− 2	7	17.2	16.48	9.82	− 4	49.83	7.12	+7	55	85
2	− 6	6	15.3	16.62	9.80	−10	49.83	7.14	+5	55	85
3	− 8	+6	13.2	+16.75	+ 9.78	−14	49.83	−7.17	+2	56	85

Tag		0ʰ Welt-Zeit								
		Sternzeit Greenw.	*t*	*f*	log *g*	*G*	log *h*	*H*	log *i*	*i*
1939		h	s	s		h m		h m		"
Mai	3	14.7	0.3333	+1.622	1.1061	2 16.5	1.2910	15 3.5	0.7843*n*	−6.085
	4	14.7	0.3361	1.629	1.1079	2 16.4	1.2917	14 59.6	0.7776*n*	5.992
	5	14.8	0.3388	1.636	1.1097	2 16.2	1.2923	14 55.7	0.7707*n*	5.898
	6	14.9	0.3415	1.644	1.1116	2 16.1	1.2929	14 51.8	0.7636*n*	5.802
	7	14.9	0.3443	1.652	1.1134	2 16.0	1.2936	14 48.0	0.7562*n*	5.704
	8	15.0	0.3470	1.659	1.1152	2 15.9	1.2942	14 44.1	0.7487*n*	5.606
	9	15.1	0.3497	+1.667	1.1170	2 15.7	1.2948	14 40.3	0.7408*n*	−5.505
	10	15.1	0.3525	1.675	1.1189	2 15.6	1.2954	14 36.5	0.7326*n*	5.403
	11	15.2	0.3552	1.683	1.1207	2 15.4	1.2960	14 32.7	0.7242*n*	5.299
	12	15.3	0.3580	1.691	1.1226	2 15.3	1.2967	14 28.9	0.7155*n*	5.194
	13	15.3	0.3607	1.699	1.1245	2 15.1	1.2973	14 25.1	0.7065*n*	5.088
	14	15.4	0.3634	1.707	1.1263	2 14.9	1.2979	14 21.3	0.6972*n*	4.980
	15	15.5	0.3662	+1.715	1.1282	2 14.7	1.2985	14 17.6	0.6876*n*	−4.871
	16	15.5	0.3689	1.723	1.1301	2 14.5	1.2990	14 13.8	0.6777*n*	4.761
	17	15.6	0.3716	1.732	1.1319	2 14.4	1.2996	14 10.1	0.6674*n*	4.649
	18	15.7	0.3744	1.740	1.1338	2 14.2	1.3002	14 6.4	0.6567*n*	4.536
	19	15.7	0.3771	1.749	1.1357	2 14.0	1.3007	14 2.7	0.6455*n*	4.421
	20	15.8	0.3799	1.757	1.1375	2 13.8	1.3013	13 59.0	0.6341*n*	4.306
	21	15.8	0.3826	+1.766	1.1394	2 13.5	1.3018	13 55.3	0.6221*n*	−4.189
	22	15.9	0.3853	1.775	1.1413	2 13.3	1.3024	13 51.6	0.6097*n*	4.071
	23	16.0	0.3881	1.784	1.1432	2 13.1	1.3029	13 47.9	0.5968*n*	3.952
	24	16.0	0.3908	1.793	1.1451	2 12.8	1.3034	13 44.3	0.5834*n*	3.832
	25	16.1	0.3935	1.802	1.1469	2 12.6	1.3039	13 40.6	0.5695*n*	3.711
	26	16.2	0.3963	1.811	1.1488	2 12.3	1.3043	13 37.0	0.5550*n*	3.589
	27	16.2	0.3990	+1.820	1.1507	2 12.0	1.3048	13 33.3	0.5398*n*	−3.466
	28	16.3	0.4018	1.829	1.1525	2 11.8	1.3053	13 29.7	0.5240*n*	3.342
	29	16.4	0.4045	1.839	1.1544	2 11.5	1.3057	13 26.1	0.5075*n*	3.217
	30	16.4	0.4072	1.848	1.1562	2 11.3	1.3061	13 22.5	0.4902*n*	3.092
	31	16.5	0.4100	1.857	1.1581	2 10.0	1.3065	13 18.9	0.4720*n*	2.965
Juni	1	16.6	0.4127	1.867	1.1599	2 10.7	1.3069	13 15.3	0.4530*n*	2.838
	2	16.6	0.4155	+1.876	1.1618	2 10.4	1.3073	13 11.7	0.4328*n*	−2.709
	3	16.7	0.4182	1.886	1.1636	2 10.1	1.3076	13 8.1	0.4116*n*	2.580
	4	16.8	0.4209	1.895	1.1654	2 9.7	1.3080	13 4.6	0.3893*n*	2.451
	5	16.8	0.4237	1.905	1.1673	2 9.4	1.3083	13 1.0	0.3657*n*	2.321
	6	16.9	0.4264	1.915	1.1691	2 9.1	1.3086	12 57.5	0.3406*n*	2.191
	7	17.0	0.4291	1.924	1.1709	2 8.8	1.3089	12 53.9	0.3137*n*	2.059
	8	17.0	0.4319	+1.934	1.1727	2 8.4	1.3092	12 50.4	0.2849*n*	−1.927
	9	17.1	0.4346	1.944	1.1744	2 8.1	1.3095	12 46.8	0.2541*n*	1.795
	10	17.2	0.4374	1.954	1.1762	2 7.7	1.3097	12 43.3	0.2206*n*	1.662
	11	17.2	0.4401	1.964	1.1780	2 7.4	1.3099	12 39.8	0.1844*n*	1.529
	12	17.3	0.4428	1.973	1.1797	2 7.0	1.3101	12 36.2	0.1449*n*	1.396
	13	17.4	0.4456	+1.983	1.1815	2 6.6	1.3103	12 32.7	0.1011*n*	−1.262

Tag		f'	g'	G'	Allgemeine Präzession seit 1939.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
		0h Welt-Zeit										
1939		in $0.^s001$	in $0.''01$	h	"	"	in $0.''01$	23° 26' "	"	in $0.''01$	in 0.001	
Mai	3	− 8	+6	13.2	+16.75	+ 9.78	−14	49.83	−7.17	+2	56	85
	4	− 8	6	10.6	16.89	9.76	−14	49.83	7.19	−2	56	85
	5	− 6	7	8.5	17.03	9.74	−10	49.83	7.21	−5	56	86
	6	− 2	7	6.8	17.17	9.73	− 4	49.82	7.24	−7	56	86
	7	+ 2	8	5.4	17.30	9.71	+ 3	49.82	7.26	−8	57	86
	8	+ 6	8	4.0	17.44	9.70	+10	49.82	7.29	−7	57	86
	9	+ 9	+8	2.7	+17.58	+ 9.69	+15	49.82	−7.31	−5	57	86
	10	+11	7	1.2	17.72	9.68	+18	49.82	7.33	−2	57	86
	11	+10	7	23.5	17.85	9.67	+17	49.82	7.36	+1	58	86
	12	+ 8	7	21.6	17.99	9.66	+14	49.82	7.38	+4	58	86
	13	+ 5	7	19.8	18.13	9.66	+ 8	49.82	7.40	+6	58	86
	14	0	7	18.1	18.27	9.65	0	49.81	7.43	+7	58	87
	15	− 5	+8	16.4	+18.41	+ 9.65	− 8	49.81	−7.45	+7	59	87
	16	−10	9	14.9	18.54	9.65	−16	49.81	7.47	+6	59	87
	17	−13	9	13.4	18.68	9.65	−21	49.81	7.50	+3	59	87
	18	−14	9	12.0	18.82	9.65	−23	49.81	7.52	0	59	87
	19	−12	9	10.4	18.96	9.65	−20	49.81	7.54	−3	60	87
	20	− 8	8	8.8	19.09	9.66	−14	49.81	7.56	−6	60	87
	21	− 3	+8	7.0	+19.23	+ 9.66	− 5	49.81	−7.59	−7	60	87
	22	+ 3	7	4.9	19.37	9.67	+ 5	49.80	7.61	−7	60	88
	23	+ 8	7	2.7	19.51	9.67	+13	49.80	7.63	−5	61	88
	24	+11	7	0.6	19.64	9.68	+18	49.80	7.65	−1	61	88
	25	+12	8	22.8	19.78	9.69	+19	49.80	7.67	+3	61	88
	26	+ 9	8	21.1	19.92	9.70	+15	49.80	7.69	+6	61	88
	27	+ 5	+8	19.6	+20.06	+ 9.71	+ 8	49.80	−7.71	+7	62	88
	28	0	7	17.9	20.19	9.73	0	49.80	7.73	+7	62	88
	29	− 5	6	16.0	20.33	9.74	− 8	49.80	7.75	+6	62	88
	30	− 8	5	13.8	20.47	9.76	−12	49.79	7.77	+3	62	88
	31	− 8	5	11.4	20.61	9.77	−14	49.79	7.79	−1	63	88
Juni	1	− 7	6	9.1	20.74	9.79	−11	49.79	7.80	−4	63	88
	2	− 4	+7	7.3	+20.88	+ 9.81	− 6	49.79	−7.82	−6	63	89
	3	0	8	5.9	21.02	9.82	+ 1	49.79	7.84	−8	64	89
	4	+ 5	8	4.5	21.16	9.84	+ 8	49.79	7.85	−7	64	89
	5	+ 8	8	3.1	21.30	9.86	+13	49.79	7.87	−6	64	89
	6	+10	7	1.7	21.43	9.88	+16	49.78	7.88	−3	64	89
	7	+10	7	0.1	21.57	9.91	+17	49.78	7.90	0	65	89
	8	+ 9	+6	22.2	+21.71	+ 9.93	+15	49.78	−7.91	+3	65	89
	9	+ 6	6	20.4	21.85	9.95	+10	49.78	7.92	+5	65	89
	10	+ 1	7	18.5	21.98	9.97	+ 2	49.78	7.94	+7	65	89
	11	− 4	8	16.8	22.12	10.00	− 6	49.78	7.95	+8	66	89
	12	− 9	9	15.3	22.26	10.02	−14	49.78	7.96	+7	66	89
	13	−13	+9	13.9	+22.40	+10.05	−21	49.78	−7.97	+4	66	89

Tag	0h Welt-Zeit								
	Stern-zeit Greenw.	t	f	log g	G	log h	H	log i	i
1939	h	s	s		h m		h m		"
Juni 13	17.4	0.4456	+1.983	1.1815	2 6.6	1.3103	12 32.7	0.1011$_n$	−1.262
14	17.4	0.4483	1.993	1.1832	2 6.2	1.3105	12 29.2	0.0519$_n$	1.127
15	17.5	0.4510	2.003	1.1849	2 5.9	1.3106	12 25.7	9.9965$_n$	0.992
16	17.6	0.4538	2.013	1.1866	2 5.5	1.3107	12 22.2	9.9330$_n$	0.857
17	17.6	0.4565	2.023	1.1884	2 5.1	1.3108	12 18.7	9.8585$_n$	0.722
18	17.7	0.4593	2.033	1.1901	2 4.7	1.3109	12 15.2	9.7686$_n$	0.587
19	17.8	0.4620	+2.043	1.1918	2 4.3	1.3110	12 11.7	9.6551$_n$	−0.452
20	17.8	0.4647	2.053	1.1934	2 3.9	1.3111	12 8.2	9.4997$_n$	0.316
21	17.9	0.4675	2.063	1.1951	2 3.5	1.3111	12 4.7	9.2553$_n$	0.180
22	18.0	0.4702	2.073	1.1967	2 3.0	1.3111	12 1.2	8.6532$_n$	−0.045
23	18.0	0.4729	2.083	1.1983	2 2.6	1.3111	11 57.7	8.9590	+0.091
24	18.1	0.4757	2.094	1.1999	2 2.2	1.3111	11 54.2	9.3560	0.227
25	18.1	0.4784	+2.104	1.2015	2 1.8	1.3110	11 50.7	9.5587	+0.362
26	18.2	0.4812	2.114	1.2031	2 1.3	1.3110	11 47.2	9.6964	0.497
27	18.3	0.4839	2.124	1.2047	2 0.9	1.3109	11 43.7	9.8007	0.632
28	18.3	0.4866	2.134	1.2062	2 0.4	1.3108	11 40.2	9.8848	0.767
29	18.4	0.4894	2.144	1.2078	2 0.0	1.3107	11 36.6	9.9552	0.902
30	18.5	0.4921	2.154	1.2093	1 59.5	1.3106	11 33.1	0.0158	1.037
Juli 1	18.5	0.4949	+2.164	1.2108	1 59.1	1.3104	11 29.6	0.0686	+1.171
2	18.6	0.4976	2.174	1.2123	1 58.6	1.3102	11 26.1	0.1156	1.305
3	18.7	0.5003	2.183	1.2138	1 58.2	1.3100	11 22.6	0.1581	1.439
4	18.7	0.5031	2.193	1.2153	1 57.7	1.3098	11 19.1	0.1965	1.572
5	18.8	0.5058	2.203	1.2167	1 57.3	1.3096	11 15.6	0.2317	1.705
6	18.9	0.5085	2.213	1.2182	1 56.8	1.3094	11 12.0	0.2641	1.837
7	18.9	0.5113	+2.223	1.2196	1 56.3	1.3091	11 8.5	0.2942	+1.969
8	19.0	0.5140	2.232	1.2210	1 55.9	1.3088	11 5.0	0.3222	2.100
9	19.1	0.5168	2.242	1.2224	1 55.4	1.3085	11 1.4	0.3485	2.231
10	19.1	0.5195	2.252	1.2237	1 54.9	1.3082	10 57.9	0.3731	2.361
11	19.2	0.5222	2.261	1.2251	1 54.5	1.3079	10 54.3	0.3962	2.490
12	19.3	0.5250	2.271	1.2264	1 54.0	1.3075	10 50.8	0.4181	2.619
13	19.3	0.5277	+2.280	1.2278	1 53.5	1.3072	10 47.2	0.4389	+2.747
14	19.4	0.5304	2.290	1.2291	1 53.0	1.3068	10 43.7	0.4585	2.874
15	19.5	0.5332	2.299	1.2304	1 52.6	1.3064	10 40.1	0.4771	3.000
16	19.5	0.5359	2.309	1.2316	1 52.1	1.3060	10 36.5	0.4950	3.126
17	19.6	0.5387	2.318	1.2329	1 51.6	1.3056	10 32.9	0.5120	3.251
18	19.7	0.5414	2.327	1.2341	1 51.1	1.3051	10 29.3	0.5283	3.375
19	19.7	0.5441	+2.336	1.2354	1 50.7	1.3047	10 25.7	0.5438	+3.498
20	19.8	0.5469	2.345	1.2366	1 50.2	1.3042	10 22.1	0.5587	3.620
21	19.9	0.5496	2.354	1.2378	1 49.7	1.3037	10 18.5	0.5730	3.741
22	19.9	0.5523	2.363	1.2390	1 49.2	1.3032	10 14.9	0.5867	3.861
23	20.0	0.5551	2.372	1.2402	1 48.8	1.3027	10 11.2	0.5999	3.980
24	20.1	0.5578	+2.381	1.2413	1 48.3	1.3022	10 7.6	0.6126	+4.098

Tag	0h Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1939.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1939	s in 0.001	" in 0.01	h	"	"	" in 0.01	23° 26' "	"	" in 0.01	in 0.001	
Juni 13	−13	+ 9	13.9	+22.40	+10.05	−21	49.78	−7.97	+4	66	89
14	−15	10	12.5	22.53	10.07	−24	49.77	7.98	+1	67	89
15	−14	10	11.0	22.67	10.10	−23	49.77	7.99	−2	67	89
16	−11	9	9.4	22.81	10.12	−18	49.77	8.00	−6	67	89
17	− 6	8	7.7	22.95	10.15	− 9	49.77	8.01	−8	67	89
18	+ 1	7	5.7	23.08	10.18	+ 1	49.77	8.02	−8	68	89
19	+ 7	+ 7	3.5	+23.22	+10.20	+11	49.77	−8.03	−6	68	89
20	+11	8	1.3	23.36	10.23	+18	49.77	8.03	−3	68	89
21	+12	8	23.4	23.50	10.26	+20	49.77	8.04	+1	68	89
22	+11	9	21.8	23.63	10.28	+18	49.76	8.05	+5	69	89
23	+ 7	9	20.2	23.77	10.31	+12	49.76	8.05	+7	69	89
24	+ 2	8	18.7	23.91	10.34	+ 4	49.76	8.06	+8	69	89
25	− 3	+ 7	17.0	+24.05	+10.36	− 4	49.76	−8.06	+6	69	89
26	− 6	6	14.8	24.19	10.39	−10	49.76	8.06	+4	70	89
27	− 8	5	12.2	24.32	10.42	−13	49.76	8.07	0	70	89
28	− 7	6	9.5	24.46	10.44	−11	49.76	8.07	−3	70	89
29	− 4	7	7.6	24.60	10.47	− 7	49.76	8.07	−6	70	89
30	0	8	6.2	24.74	10.49	− 1	49.75	8.07	−8	71	89
Juli 1	+ 4	+ 8	4.8	+24.87	+10.52	+ 6	49.75	−8.07	−7	71	89
2	+ 7	8	3.5	25.01	10.54	+12	49.75	8.07	−6	71	89
3	+10	7	2.1	25.15	10.57	+16	49.75	8.07	−4	71	89
4	+10	7	0.6	25.29	10.59	+17	49.75	8.07	−1	72	89
5	+ 9	6	22.9	25.42	10.62	+15	49.75	8.07	+2	72	89
6	+ 7	6	21.0	25.56	10.64	+11	49.75	8.06	+4	72	89
7	+ 3	+ 7	19.1	+25.70	+10.66	+ 5	49.74	−8.06	+6	72	89
8	− 2	8	17.4	25.84	10.68	− 3	49.74	8.06	+7	73	89
9	− 7	8	15.8	25.97	10.70	−11	49.74	8.05	+7	73	89
10	−12	9	14.4	26.11	10.72	−19	49.74	8.05	+5	73	89
11	−15	10	13.0	26.25	10.74	−24	49.74	8.04	+3	73	89
12	−15	10	11.7	26.39	10.76	−25	49.74	8.04	−1	73	89
13	−13	+10	10.2	+26.52	+10.78	−22	49.74	−8.03	−4	74	88
14	− 9	9	8.7	26.66	10.80	−15	49.74	8.02	−7	74	88
15	− 3	8	6.9	26.80	10.81	− 4	49.73	8.02	−8	74	88
16	+ 4	7	4.7	26.94	10.83	+ 6	49.73	8.01	−7	74	88
17	+ 9	7	2.3	27.08	10.84	+14	49.73	8.00	−4	75	88
18	+12	8	0.1	27.21	10.85	+19	49.73	7.99	0	75	88
19	+12	+ 9	22.3	+27.35	+10.87	+19	49.73	−7.98	+4	75	88
20	+ 9	9	20.8	27.49	10.88	+15	49.73	7.97	+6	75	88
21	+ 4	8	19.4	27.63	10.89	+ 7	49.73	7.96	+8	75	88
22	− 1	7	17.8	27.76	10.89	− 1	49.73	7.95	+7	76	88
23	− 5	6	15.8	27.90	10.90	− 8	49.72	7.94	+5	76	88
24	− 7	+ 5	13.1	+28.04	+10.91	−11	49.72	−7.93	+1	76	88

Tag		0h Welt-Zeit								
		Sternzeit Greenw.	*t*	*f*	log *g*	*G*	log *h*	*H*	log *i*	*i*
1939		h	s	s		h m		h m		"
Juli	24	20.1	0.5578	+2.381	1.2413	1 48.3	1.3022	10 7.6	0.6126	+4.098
	25	20.1	0.5606	2.389	1.2424	1 47.8	1.3017	10 3.9	0.6248	4.215
	26	20.2	0.5633	2.398	1.2436	1 47.4	1.3012	10 0.3	0.6365	4.330
	27	20.3	0.5660	2.407	1.2447	1 46.9	1.3006	9 56.6	0.6478	4.444
	28	20.3	0.5688	2.415	1.2458	1 46.4	1.3001	9 52.9	0.6588	4.558
	29	20.4	0.5715	2.424	1.2468	1 46.0	1.2995	9 49.2	0.6693	4.670
	30	20.4	0.5743	+2.432	1.2479	1 45.5	1.2989	9 45.5	0.6795	+4.781
	31	20.5	0.5770	2.440	1.2489	1 45.1	1.2984	9 41.8	0.6893	4.890
Aug.	1	20.6	0.5797	2.448	1.2500	1 44.6	1.2978	9 38.1	0.6988	4.998
	2	20.6	0.5825	2.456	1.2510	1 44.2	1.2972	9 34.3	0.7080	5.105
	3	20.7	0.5852	2.464	1.2520	1 43.7	1.2966	9 30.6	0.7168	5.210
	4	20.8	0.5879	2.472	1.2530	1 43.3	1.2960	9 26.8	0.7254	5.314
	5	20.8	0.5907	+2.480	1.2539	1 42.8	1.2954	9 23.0	0.7338	+5.417
	6	20.9	0.5934	2.488	1.2549	1 42.4	1.2947	9 19.2	0.7417	5.517
	7	21.0	0.5962	2.496	1.2559	1 42.0	1.2941	9 15.4	0.7494	5.616
	8	21.0	0.5989	2.503	1.2568	1 41.6	1.2935	9 11.6	0.7570	5.715
	9	21.1	0.6016	2.511	1.2577	1 41.2	1.2929	9 7.8	0.7643	5.811
	10	21.2	0.6044	2.518	1.2586	1 40.7	1.2922	9 4.0	0.7713	5.906
	11	21.2	0.6071	+2.525	1.2595	1 40.3	1.2916	9 0.1	0.7781	+5.999
	12	21.3	0.6098	2.533	1.2604	1 39.9	1.2910	8 56.3	0.7847	6.091
	13	21.4	0.6126	2.540	1.2613	1 39.5	1.2904	8 52.4	0.7910	6.180
	14	21.4	0.6153	2.547	1.2622	1 39.1	1.2897	8 48.5	0.7971	6.268
	15	21.5	0.6181	2.554	1.2630	1 38.7	1.2891	8 44.6	0.8031	6.355
	16	21.6	0.6208	2.561	1.2638	1 38.3	1.2885	8 40.7	0.8088	6.439
	17	21.6	0.6235	+2.568	1.2647	1 38.0	1.2879	8 36.8	0.8144	+6.522
	18	21.7	0.6263	2.575	1.2655	1 37.6	1.2873	8 32.9	0.8197	6.603
	19	21.8	0.6290	2.581	1.2663	1 37.2	1.2867	8 28.9	0.8249	6.682
	20	21.8	0.6317	2.588	1.2671	1 36.9	1.2861	8 25.0	0.8299	6.759
	21	21.9	0.6345	2.594	1.2679	1 36.5	1.2855	8 21.0	0.8347	6.835
	22	22.0	0.6372	2.600	1.2686	1 36.1	1.2849	8 17.0	0.8394	6.908
	23	22.0	0.6400	+2.607	1.2694	1 35.8	1.2843	8 13.0	0.8439	+6.980
	24	22.1	0.6427	2.613	1.2702	1 35.5	1.2837	8 9.0	0.8481	7.049
	25	22.2	0.6454	2.619	1.2709	1 35.1	1.2831	8 5.0	0.8523	7.117
	26	22.2	0.6482	2.625	1.2717	1 34.8	1.2826	8 1.0	0.8563	7.183
	27	22.3	0.6509	2.631	1.2724	1 34.5	1.2820	7 56.9	0.8602	7.247
	28	22.4	0.6537	2.637	1.2732	1 34.2	1.2815	7 52.9	0.8638	7.308
	29	22.4	0.6564	+2.643	1.2739	1 33.9	1.2810	7 48.8	0.8673	+7.368
	30	22.5	0.6591	2.649	1.2746	1 33.6	1.2805	7 44.7	0.8707	7.425
	31	22.6	0.6619	2.655	1.2753	1 33.3	1.2800	7 40.6	0.8740	7.481
Sept.	1	22.6	0.6646	2.660	1.2760	1 33.0	1.2795	7 36.5	0.8770	7.534
	2	22.7	0.6673	2.666	1.2767	1 32.8	1.2790	7 32.4	0.8800	7.586
	3	22.7	0.6701	+2.672	1.2774	1 32.5	1.2786	7 28.3	0.8828	+7.635

Tag	0ʰ Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1939.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1939	in 0.ˢ001	in 0.″01	ʰ	″	″	in 0.″01	23° 26′ ″	″	in 0.″01	in 0.001	
Juli 24	− 7	+ 5	13.1	+28.04	+10.91	−11	49.72	−7.93	+1	76	88
25	− 7	5	10.1	28.18	10.91	−11	49.72	7.92	−2	76	87
26	− 4	6	7.8	28.31	10.92	− 7	49.72	7.91	−5	76	87
27	− 1	7	6.3	28.45	10.92	− 1	49.72	7.90	−7	77	87
28	+ 3	8	5.0	28.59	10.92	+ 5	49.72	7.89	−8	77	87
29	+ 7	8	3.7	28.73	10.92	+11	49.72	7.88	−7	77	87
30	+10	+ 8	2.4	+28.86	+10.92	+16	49.72	−7.86	−5	77	87
31	+11	7	1.0	29.00	10.92	+17	49.71	7.85	−2	77	87
Aug. 1	+10	7	23.4	29.14	10.91	+16	49.71	7.84	+1	78	87
2	+ 8	6	21.6	29.28	10.91	+13	49.71	7.83	+4	78	87
3	+ 4	7	19.7	29.42	10.90	+ 7	49.71	7.81	+6	78	86
4	0	7	18.0	29.55	10.89	0	49.71	7.80	+7	78	86
5	− 5	+ 8	16.3	+29.69	+10.88	− 8	49.71	−7.79	+7	78	86
6	−10	9	14.8	29.83	10.87	−16	49.71	7.77	+6	78	86
7	−13	9	13.5	29.97	10.86	−22	49.71	7.76	+4	79	86
8	−15	10	12.1	30.10	10.85	−25	49.70	7.75	0	79	86
9	−15	10	10.8	30.24	10.83	−24	49.70	7.73	−3	79	86
10	−11	9	9.4	30.38	10.82	−18	49.70	7.72	−6	79	86
11	− 6	+ 8	7.9	+30.52	+10.80	−10	49.70	−7.71	−7	79	85
12	0	7	5.9	30.65	10.78	0	49.70	7.69	−7	79	85
13	+ 6	7	3.6	30.79	10.76	+10	49.70	7.68	−5	80	85
14	+10	7	1.0	30.93	10.74	+16	49.70	7.66	−2	80	85
15	+11	7	22.9	31.07	10.71	+18	49.69	7.65	+2	80	85
16	+ 9	8	21.1	31.20	10.69	+15	49.69	7.64	+6	80	85
17	+ 5	+ 8	19.6	+31.34	+10.66	+ 9	49.69	−7.62	+8	80	85
18	+ 1	8	18.2	31.48	10.64	+ 1	49.69	7.61	+8	80	85
19	− 4	6	16.5	31.62	10.61	− 6	49.69	7.60	+6	81	84
20	− 6	5	14.0	31.75	10.58	−11	49.69	7.58	+3	81	84
21	− 7	5	11.1	31.89	10.55	−11	49.69	7.57	−1	81	84
22	− 5	6	8.3	32.03	10.51	− 8	49.69	7.56	−5	81	84
23	− 1	+ 7	6.5	+32.17	+10.48	− 2	49.68	−7.55	−7	81	84
24	+ 3	8	5.1	32.31	10.44	+ 5	49.68	7.54	−8	81	84
25	+ 7	8	3.9	32.44	10.41	+11	49.68	7.53	−7	81	84
26	+10	8	2.6	32.58	10.37	+16	49.68	7.51	−5	82	84
27	+11	8	1.3	32.72	10.33	+19	49.68	7.50	−3	82	84
28	+11	7	23.8	32.86	10.29	+18	49.68	7.49	0	82	83
29	+ 9	+ 7	22.3	+32.99	+10.25	+15	49.68	−7.48	+3	82	83
30	+ 6	7	20.5	33.13	10.21	+10	49.68	7.47	+5	82	83
31	+ 2	7	18.7	33.27	10.16	+ 3	49.67	7.47	+7	82	83
Sept. 1	− 3	7	17.0	33.41	10.12	− 5	49.67	7.46	+7	82	83
2	− 8	8	15.4	33.54	10.07	−12	49.67	7.45	+6	83	83
3	−12	+ 9	13.9	+33.68	+10.03	−19	49.67	−7.44	+4	83	83

Tag		0h Welt-Zeit								
		Sternzeit Greenw.	t	f	log g	G	log h	H	log i	i
1939		h	s	s		h m		h m		"
Sept.	3	22.7	0.6701	+2.672	1.2774	1 32.5	1.2786	7 28.3	0.8828	+7.635
	4	22.8	0.6728	2.677	1.2781	1 32.3	1.2781	7 24.1	0.8854	7.681
	5	22.9	0.6756	2.683	1.2788	1 32.0	1.2777	7 20.0	0.8880	7.726
	6	22.9	0.6783	2.688	1.2794	1 31.8	1.2773	7 15.8	0.8904	7.769
	7	23.0	0.6810	2.693	1.2801	1 31.6	1.2770	7 11.7	0.8926	7.809
	8	23.1	0.6838	2.699	1.2808	1 31.3	1.2766	7 7.5	0.8947	7.847
	9	23.1	0.6865	+2.704	1.2815	1 31.1	1.2762	7 3.3	0.8967	+7.883
	10	23.2	0.6892	2.709	1.2821	1 30.9	1.2759	6 59.1	0.8986	7.917
	11	23.3	0.6920	2.714	1.2828	1 30.7	1.2756	6 54.9	0.9003	7.948
	12	23.3	0.6947	2.719	1.2835	1 30.5	1.2753	6 50.7	0.9018	7.977
	13	23.4	0.6975	2.724	1.2842	1 30.4	1.2751	6 46.5	0.9033	8.004
	14	23.5	0.7002	2.729	1.2848	1 30.2	1.2748	6 42.3	0.9047	8.029
	15	23.5	0.7029	+2.734	1.2855	1 30.0	1.2746	6 38.1	0.9058	+8.051
	16	23.6	0.7057	2.739	1.2861	1 29.9	1.2744	6 33.8	0.9069	8.071
	17	23.7	0.7084	2.744	1.2868	1 29.7	1.2742	6 29.6	0.9079	8.089
	18	23.7	0.7111	2.749	1.2875	1 29.6	1.2741	6 25.3	0.9087	8.104
	19	23.8	0.7139	2.754	1.2882	1 29.4	1.2740	6 21.1	0.9093	8.116
	20	23.9	0.7166	2.759	1.2888	1 29.3	1.2739	6 16.8	0.9099	8.126
	21	23.9	0.7194	+2.764	1.2895	1 29.2	1.2738	6 12.6	0.9103	+8.134
	22	0.0	0.7221	2.769	1.2902	1 29.1	1.2737	6 8.3	0.9106	8.140
	23	0.1	0.7248	2.774	1.2909	1 29.0	1.2737	6 4.1	0.9108	8.144
	24	0.1	0.7276	2.779	1.2915	1 28.9	1.2737	5 59.8	0.9109	8.146
	25	0.2	0.7303	2.783	1.2922	1 28.8	1.2737	5 55.5	0.9109	8.145
	26	0.3	0.7331	2.788	1.2929	1 28.7	1.2737	5 51.2	0.9107	8.141
	27	0.3	0.7358	+2.793	1.2936	1 28.6	1.2738	5 47.0	0.9103	+8.134
	28	0.4	0.7385	2.798	1.2944	1 28.6	1.2739	5 42.7	0.9098	8.125
	29	0.5	0.7413	2.803	1.2951	1 28.5	1.2740	5 38.4	0.9093	8.115
	30	0.5	0.7440	2.808	1.2958	1 28.4	1.2741	5 34.1	0.9086	8.102
Okt.	1	0.6	0.7467	2.813	1.2965	1 28.4	1.2743	5 29.9	0.9077	8.086
	2	0.7	0.7495	2.818	1.2972	1 28.3	1.2745	5 25.6	0.9068	8.068
	3	0.7	0.7522	+2.823	1.2980	1 28.3	1.2747	5 21.3	0.9057	+8.048
	4	0.8	0.7550	2.828	1.2987	1 28.3	1.2749	5 17.0	0.9044	8.025
	5	0.9	0.7577	2.833	1.2995	1 28.3	1.2751	5 12.8	0.9031	8.000
	6	0.9	0.7604	2.838	1.3002	1 28.2	1.2754	5 8.5	0.9016	7.972
	7	1.0	0.7632	2.843	1.3010	1 28.2	1.2757	5 4.2	0.8999	7.942
	8	1.0	0.7659	2.848	1.3018	1 28.2	1.2760	5 0.0	0.8982	7.910
	9	1.1	0.7686	+2.853	1.3026	1 28.2	1.2763	4 55.7	0.8963	+7.875
	10	1.2	0.7714	2.858	1.3034	1 28.2	1.2767	4 51.5	0.8942	7.838
	11	1.2	0.7741	2.864	1.3042	1 28.2	1.2771	4 47.2	0.8920	7.798
	12	1.3	0.7769	2.869	1.3050	1 28.2	1.2775	4 43.0	0.8897	7.757
	13	1.4	0.7796	2.874	1.3058	1 28.2	1.2779	4 38.7	0.8872	7.713
	14	1.4	0.7823	+2.880	1.3067	1 28.3	1.2783	4 34.5	0.8846	+7.666

Tag	0ʰ Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1939.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1939	in 0.001 s	in 0.01 "	h	"	"	in 0.01 "	23° 26' "	"	in 0.01 "	in 0.001	
Sept. 3	−12	+ 9	13.9	+33.68	+10.03	−19	49.67	−7.44	+4	83	83
4	−14	9	12.5	33.82	9.98	−23	49.67	7.43	+1	83	83
5	−14	10	11.2	33.96	9.93	−24	49.67	7.43	−2	83	83
6	−12	9	9.9	34.09	9.88	−20	49.67	7.42	−5	83	83
7	− 8	9	8.4	34.23	9.83	−13	49.67	7.41	−7	83	83
8	− 3	7	6.8	34.37	9.78	− 4	49.66	7.41	−7	83	83
9	+ 3	+ 6	4.8	+34.51	+ 9.73	+ 5	49.66	−7.40	−6	83	82
10	+ 8	6	2.2	34.64	9.67	+12	49.66	7.40	−3	84	82
11	+10	6	23.6	34.78	9.62	+15	49.66	7.39	+1	84	82
12	+ 9	7	21.4	34.92	9.57	+14	49.66	7.39	+4	84	82
13	+ 6	8	19.9	35.06	9.51	+10	49.66	7.39	+7	84	82
14	+ 2	8	18.5	35.20	9.46	+ 2	49.66	7.39	+8	84	82
15	− 3	+ 7	16.8	+35.33	+ 9.40	− 5	49.66	−7.38	+7	84	82
16	− 6	6	14.8	35.47	9.35	−11	49.65	7.38	+4	84	82
17	− 8	5	12.3	35.61	9.29	−13	49.65	7.38	0	84	82
18	− 6	6	9.3	35.75	9.23	−11	49.65	7.38	−3	85	82
19	− 3	7	7.2	35.88	9.17	− 5	49.65	7.38	−6	85	82
20	+ 1	8	5.6	36.02	9.12	+ 2	49.65	7.39	−8	85	82
21	+ 6	+ 9	4.2	+36.16	+ 9.06	+10	49.65	−7.39	−8	85	82
22	+10	9	2.9	36.30	9.00	+16	49.65	7.39	−6	85	82
23	+12	8	1.6	36.43	8.94	+19	49.64	7.39	−3	85	82
24	+12	8	0.2	36.57	8.89	+20	49.64	7.40	0	85	82
25	+11	7	22.7	36.71	8.83	+18	49.64	7.40	+3	86	82
26	+ 8	7	21.1	36.85	8.77	+13	49.64	7.41	+5	86	82
27	+ 4	+ 7	19.3	+36.98	+ 8.71	+ 6	49.64	−7.41	+6	86	82
28	− 1	7	17.6	37.12	8.65	− 2	49.64	7.42	+7	86	82
29	− 6	8	16.0	37.26	8.60	− 9	49.64	7.43	+7	86	82
30	−10	8	14.5	37.40	8.54	−16	49.64	7.44	+5	86	82
Okt. 1	−12	8	13.0	37.53	8.48	−20	49.63	7.44	+2	86	82
2	−13	9	11.6	37.67	8.43	−22	49.63	7.45	−1	87	82
3	−12	+ 9	10.2	+37.81	+ 8.37	−20	49.63	−7.46	−4	87	82
4	− 9	9	8.8	37.95	8.31	−14	49.63	7.47	−6	87	82
5	− 4	8	7.3	38.08	8.26	− 6	49.63	7.49	−7	87	82
6	+ 2	7	5.4	38.22	8.20	+ 3	49.63	7.50	−7	87	82
7	+ 6	6	3.1	38.36	8.15	+10	49.63	7.51	−4	87	82
8	+ 9	6	0.5	38.50	8.09	+14	49.63	7.52	−1	87	82
9	+ 9	+ 6	22.1	+38.63	+ 8.04	+14	49.62	−7.54	+3	88	82
10	+ 6	7	20.3	38.77	7.99	+10	49.62	7.55	+6	88	83
11	+ 2	8	18.7	38.91	7.94	+ 4	49.62	7.57	+8	88	83
12	− 3	8	17.1	39.05	7.89	− 4	49.62	7.58	+7	88	83
13	− 6	7	15.4	39.19	7.84	−11	49.62	7.60	+5	88	83
14	− 8	+ 6	13.2	+39.32	+ 7.79	−14	49.62	−7.61	+2	88	83

Tag	0h Welt-Zeit								
	Sternzeit Greenw.	*t*	*f*	log *g*	*G*	log *h*	*H*	log *i*	*i*
1939	h	s	s		h m		h m		"
Okt. 14	1.4	0.7823	+2.880	1.3067	1 28.3	1.2783	4 34.5	0.8846	+7.666
15	1.5	0.7851	2.885	1.3075	1 28.3	1.2788	4 30.3	0.8818	7.617
16	1.6	0.7878	2.891	1.3084	1 28.3	1.2792	4 26.1	0.8789	7.566
17	1.6	0.7905	2.897	1.3092	1 28.4	1.2797	4 21.8	0.8758	7.513
18	1.7	0.7933	2.902	1.3101	1 28.4	1.2802	4 17.6	0.8726	7.458
19	1.8	0.7960	2.908	1.3110	1 28.4	1.2807	4 13.4	0.8692	7.400
20	1.8	0.7988	+2.914	1.3119	1 28.5	1.2812	4 9.3	0.8657	+7.340
21	1.9	0.8015	2.920	1.3129	1 28.5	1.2818	4 5.1	0.8620	7.278
22	2.0	0.8042	2.926	1.3138	1 28.5	1.2823	4 0.9	0.8581	7.213
23	2.0	0.8070	2.932	1.3147	1 28.6	1.2829	3 56.7	0.8541	7.146
24	2.1	0.8097	2.938	1.3156	1 28.6	1.2835	3 52.6	0.8498	7.076
25	2.2	0.8124	2.944	1.3166	1 28.7	1.2841	3 48.4	0.8454	7.005
26	2.2	0.8152	+2.951	1.3176	1 28.7	1.2847	3 44.3	0.8409	+6.932
27	2.3	0.8179	2.957	1.3185	1 28.8	1.2853	3 40.2	0.8361	6.857
28	2.4	0.8207	2.963	1.3195	1 28.8	1.2859	3 36.0	0.8312	6.779
29	2.4	0.8234	2.970	1.3205	1 28.9	1.2865	3 31.9	0.8260	6.699
30	2.5	0.8261	2.977	1.3216	1 28.9	1.2871	3 27.8	0.8207	6.617
31	2.6	0.8289	2.983	1.3226	1 29.0	1.2878	3 23.7	0.8152	6.534
Nov. 1	2.6	0.8316	+2.990	1.3236	1 29.0	1.2884	3 19.7	0.8094	+6.448
2	2.7	0.8344	2.997	1.3246	1 29.1	1.2891	3 15.6	0.8034	6.359
3	2.8	0.8371	3.004	1.3257	1 29.1	1.2897	3 11.5	0.7972	6.269
4	2.8	0.8398	3.011	1.3268	1 29.2	1.2904	3 7.5	0.7908	6.178
5	2.9	0.8426	3.019	1.3278	1 29.2	1.2910	3 3.4	0.7842	6.084
6	3.0	0.8453	3.026	1.3289	1 29.3	1.2917	2 59.5	0.7773	5.988
7	3.0	0.8480	+3.033	1.3300	1 29.3	1.2923	2 55.4	0.7701	+5.890
8	3.1	0.8508	3.041	1.3311	1 29.3	1.2930	2 51.4	0.7628	5.791
9	3.2	0.8535	3.049	1.3322	1 29.4	1.2936	2 47.4	0.7550	5.689
10	3.2	0.8563	3.056	1.3334	1 29.4	1.2943	2 43.4	0.7471	5.586
11	3.3	0.8590	3.064	1.3345	1 29.4	1.2950	2 39.4	0.7389	5.481
12	3.3	0.8617	3.072	1.3356	1 29.5	1.2956	2 35.4	0.7304	5.375
13	3.4	0.8645	+3.080	1.3368	1 29.5	1.2962	2 31.5	0.7215	+5.266
14	3.5	0.8672	3.088	1.3380	1 29.5	1.2969	2 27.5	0.7123	5.156
15	3.5	0.8699	3.096	1.3392	1 29.5	1.2975	2 23.6	0.7029	5.045
16	3.6	0.8727	3.105	1.3403	1 29.5	1.2981	2 19.6	0.6930	4.932
17	3.7	0.8754	3.113	1.3415	1 29.5	1.2987	2 15.7	0.6828	4.817
18	3.7	0.8782	3.122	1.3427	1 29.5	1.2993	2 11.8	0.6721	4.700
19	3.8	0.8809	+3.130	1.3439	1 29.5	1.2999	2 7.9	0.6611	+4.582
20	3.9	0.8836	3.139	1.3451	1 29.5	1.3005	2 4.0	0.6496	4.463
21	3.9	0.8864	3.148	1.3463	1 29.5	1.3011	2 0.1	0.6377	4.342
22	4.0	0.8891	3.157	1.3475	1 29.5	1.3017	1 56.2	0.6253	4.220
23	4.1	0.8918	3.166	1.3487	1 29.5	1.3022	1 52.4	0.6125	4.097
24	4.1	0.8946	+3.175	1.3499	1 29.4	1.3028	1 48.5	0.5990	+3.972

Tag	0ʰ Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1939.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1939	in 0.ˢ001	in 0.″01	ʰ	″	″	in 0.″01	23° 26′ ″	″	in 0.″01	in 0.001	
Okt. 14	− 8	+6	13.2	+39.32	+7.79	−14	49.62	−7.61	+2	88	83
15	− 8	6	10.6	39.46	7.74	−13	49.62	7.63	−2	89	83
16	− 5	6	8.2	39.60	7.70	− 9	49.62	7.65	−5	89	83
17	− 1	7	6.4	39.74	7.65	− 2	49.61	7.66	−7	89	83
18	+ 4	8	4.8	39.87	7.61	+ 6	49.61	7.68	−8	89	83
19	+ 8	9	3.5	40.01	7.56	+13	49.61	7.70	−7	89	83
20	+11	+9	2.2	+40.15	+7.52	+18	49.61	−7.72	−5	89	83
21	+13	8	0.9	40.29	7.48	+20	49.61	7.74	−2	90	84
22	+12	8	23.3	40.42	7.44	+19	49.61	7.76	+1	90	84
23	+ 9	7	21.7	40.56	7.40	+15	49.61	7.78	+4	90	84
24	+ 5	7	20.0	40.70	7.36	+ 9	49.61	7.80	+6	90	84
25	+ 1	7	18.2	40.84	7.33	+ 1	49.60	7.82	+7	90	84
26	− 4	+7	16.5	+40.97	+7.29	− 7	49.60	−7.84	+7	91	84
27	− 9	8	14.9	41.11	7.26	−14	49.60	7.87	+5	91	84
28	−12	8	13.4	41.25	7.23	−19	49.60	7.89	+3	91	84
29	−13	9	12.0	41.39	7.20	−21	49.60	7.91	0	91	84
30	−12	9	10.6	41.52	7.17	−20	49.60	7.93	−3	91	85
31	− 9	8	9.1	41.66	7.14	−15	49.60	7.96	−6	92	85
Nov. 1	− 4	+8	7.5	+41.80	+7.12	− 7	49.59	−7.98	−7	92	85
2	+ 1	7	5.7	41.94	7.09	+ 1	49.59	8.00	−7	92	85
3	+ 6	6	3.5	42.08	7.07	+ 9	49.59	8.03	−5	92	85
4	+ 9	6	1.1	42.21	7.05	+14	49.59	8.05	−2	93	85
5	+10	6	22.8	42.35	7.03	+15	49.59	8.07	+2	93	85
6	+ 7	7	20.9	42.49	7.01	+12	49.59	8.10	+5	93	85
7	+ 4	+8	19.2	+42.63	+7.00	+ 6	49.59	−8.12	+7	93	86
8	− 1	7	17.6	42.76	6.98	− 2	49.59	8.14	+7	94	86
9	− 6	7	15.8	42.90	6.97	− 9	49.58	8.17	+6	94	86
10	− 8	6	13.9	43.04	6.96	−14	49.58	8.19	+3	94	86
11	− 9	6	11.6	43.18	6.95	−15	49.58	8.22	−1	94	86
12	− 7	6	9.3	43.31	6.94	−12	49.58	8.24	−4	95	86
13	− 3	+7	7.3	+43.45	+6.93	− 6	49.58	−8.26	−7	95	86
14	+ 1	8	5.6	43.59	6.93	+ 2	49.58	8.29	−8	95	86
15	+ 6	8	4.1	43.73	6.93	+10	49.58	8.31	−7	95	86
16	+10	8	2.7	43.86	6.92	+16	49.58	8.34	−5	96	87
17	+12	8	1.4	44.00	6.92	+19	49.57	8.36	−3	96	87
18	+12	8	23.8	44.14	6.92	+20	49.57	8.38	0	96	87
19	+10	+7	22.2	+44.28	+6.93	+17	49.57	−8.41	+3	96	87
20	+ 7	7	20.5	44.41	6.93	+11	49.57	8.43	+6	97	87
21	+ 2	7	18.7	44.55	6.94	+ 3	49.57	8.45	+7	97	87
22	− 3	7	17.0	44.69	6.95	− 5	49.57	8.47	+7	97	87
23	− 8	8	15.4	44.83	6.96	−12	49.57	8.49	+6	97	87
24	−11	+8	13.9	+44.97	+6.97	−18	49.57	−8.51	+4	98	88

Tag	0h Welt-Zeit								
	Sternzeit Greenw.	t	f	log g	G	log h	H	log i	i
1939	h	s	s		h m		h m		"
Nov. 24	4.1	0.8946	+3.175	1.3499	1 29.4	1.3028	1 48.5	0.5990	+3.972
25	4.2	0.8973	3.184	1.3511	1 29.4	1.3033	1 44.7	0.5850	3.846
26	4.3	0.9001	3.193	1.3524	1 29.4	1.3038	1 40.8	0.5703	3.718
27	4.3	0.9028	3.202	1.3536	1 29.3	1.3043	1 37.0	0.5551	3.590
28	4.4	0.9055	3.212	1.3549	1 29.3	1.3048	1 33.2	0.5392	3.461
29	4.5	0.9083	3.221	1.3561	1 29.2	1.3053	1 29.3	0.5223	3.329
30	4.5	0.9110	+3.231	1.3573	1 29.2	1.3058	1 25.5	0.5047	+3.197
Dez. 1	4.6	0.9138	3.240	1.3585	1 29.1	1.3062	1 21.7	0.4863	3.064
2	4.7	0.9165	3.250	1.3598	1 29.0	1.3066	1 17.9	0.4669	2.930
3	4.7	0.9192	3.260	1.3610	1 28.9	1.3070	1 14.1	0.4464	2.795
4	4.8	0.9220	3.270	1.3623	1 28.8	1.3074	1 10.3	0.4247	2.659
5	4.9	0.9247	3.280	1.3635	1 28.7	1.3078	1 6.5	0.4017	2.522
6	4.9	0.9274	+3.290	1.3648	1 28.6	1.3082	1 2.8	0.3775	+2.385
7	5.0	0.9302	3.300	1.3660	1 28.5	1.3085	0 59.0	0.3516	2.247
8	5.1	0.9329	3.310	1.3672	1 28.4	1.3088	0 55.2	0.3237	2.107
9	5.1	0.9357	3.320	1.3685	1 28.3	1.3091	0 51.5	0.2938	1.967
10	5.2	0.9384	3.330	1.3697	1 28.2	1.3094	0 47.7	0.2617	1.827
11	5.3	0.9411	3.340	1.3709	1 28.1	1.3097	0 43.9	0.2271	1.687
12	5.3	0.9439	+3.350	1.3721	1 27.9	1.3099	0 40.2	0.1889	+1.545
13	5.4	0.9466	3.361	1.3734	1 27.8	1.3101	0 36.4	0.1467	1.402
14	5.5	0.9493	3.371	1.3746	1 27.6	1.3103	0 32.7	0.1000	1.259
15	5.5	0.9521	3.381	1.3758	1 27.5	1.3105	0 28.9	0.0477	1.116
16	5.6	0.9548	3.392	1.3770	1 27.3	1.3106	0 25.2	9.9881	0.973
17	5.6	0.9576	3.402	1.3782	1 27.1	1.3108	0 21.5	9.9186	0.829
18	5.7	0.9603	+3.412	1.3794	1 27.0	1.3109	0 17.7	9.8357	+0.685
19	5.8	0.9630	3.423	1.3806	1 26.8	1.3110	0 14.0	9.7332	0.541
20	5.8	0.9658	3.433	1.3818	1 26.6	1.3110	0 10.2	9.5988	0.397
21	5.9	0.9685	3.444	1.3830	1 26.4	1.3111	0 6.5	9.4014	0.252
22	6.0	0.9712	3.454	1.3841	1 26.2	1.3111	0 2.8	9.0294	+0.107
23	6.0	0.9740	3.465	1.3853	1 26.0	1.3111	23 59.0	8.5798n	−0.038
24	6.1	0.9767	+3.475	1.3865	1 25.8	1.3111	23 55.3	9.2601n	−0.182
25	6.2	0.9795	3.486	1.3876	1 25.6	1.3111	23 51.5	9.5145n	0.327
26	6.2	0.9822	3.496	1.3888	1 25.4	1.3110	23 47.8	9.6739n	0.472
27	6.3	0.9849	3.507	1.3899	1 25.2	1.3109	23 44.1	9.7903n	0.617
28	6.4	0.9877	3.517	1.3910	1 24.9	1.3108	23 40.3	9.8814n	0.761
29	6.4	0.9904	3.528	1.3922	1 24.7	1.3107	23 36.6	9.9566n	0.905
30	6.5	0.9932	+3.538	1.3933	1 24.5	1.3105	23 32.8	0.0208n	−1.049
31	6.6	0.9959	3.548	1.3943	1 24.2	1.3104	23 29.1	0.0766n	1.193
32	6.6	0.9986	+3.559	1.3954	1 24.0	1.3102	23 25.3	0.1258n	−1.336

Tag	0ʰ Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1939.0	$\Delta\psi$	$\Delta\psi'$	Mittlere Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1939	in 0.ˢ001	in 0."01	ʰ	"	"	in 0."01	23° 26' "	"	in 0."01	in 0.001	
Nov. 24	−11	+8	13.9	+44.97	+6.97	−18	49.57	−8.51	+4	98	88
25	−13	9	12.5	45.10	6.98	−21	49.56	8.53	+1	98	88
26	−13	9	11.0	45.24	6.99	−21	49.56	8.55	−2	98	88
27	−10	8	9.5	45.38	7.01	−17	49.56	8.57	−5	98	88
28	− 6	8	7.9	45.52	7.02	− 9	49.56	8.59	−7	99	88
29	0	7	6.1	45.65	7.04	0	49.56	8.61	−8	99	88
30	+ 5	+7	4.0	+45.79	+7.06	+ 8	49.56	−8.63	−6	99	88
Dez. 1	+ 9	7	1.8	45.93	7.08	+14	49.56	8.65	−3	100	88
2	+10	7	23.5	46.07	7.10	+17	49.56	8.67	+1	100	88
3	+ 9	7	21.6	46.20	7.12	+15	49.55	8.69	+4	100	88
4	+ 6	8	20.0	46.34	7.14	+ 9	49.55	8.70	+7	101	89
5	+ 1	8	18.4	46.48	7.17	+ 2	49.55	8.72	+8	101	89
6	− 4	+7	16.6	+46.62	+7.19	− 6	49.55	−8.73	+7	101	89
7	− 7	6	14.6	46.75	7.22	−12	49.55	8.75	+4	101	89
8	− 9	6	12.3	46.89	7.25	−15	49.55	8.76	+1	102	89
9	− 8	6	9.9	47.03	7.27	−13	49.55	8.78	−3	102	89
10	− 5	7	7.9	47.17	7.30	− 8	49.54	8.79	−6	102	89
11	− 1	7	6.2	47.31	7.33	− 1	49.54	8.80	−8	103	89
12	+ 4	+8	4.7	+47.44	+7.36	+ 7	49.54	−8.82	−8	103	89
13	+ 8	8	3.3	47.58	7.39	+13	49.54	8.83	−6	103	89
14	+11	8	1.9	47.72	7.42	+18	49.54	8.84	−4	103	89
15	+12	8	0.4	47.86	7.45	+19	49.54	8.85	−1	104	89
16	+11	7	22.8	47.99	7.48	+18	49.54	8.86	+2	104	89
17	+ 8	7	21.1	48.13	7.52	+13	49.54	8.86	+5	104	89
18	+ 3	+7	19.3	+48.27	+7.55	+ 6	49.53	−8.87	+6	105	89
19	− 2	7	17.5	48.41	7.58	− 2	49.53	8.88	+7	105	89
20	− 6	8	15.9	48.54	7.62	−10	49.53	8.89	+7	105	89
21	−10	8	14.4	48.68	7.65	−17	49.53	8.89	+5	105	89
22	−13	9	12.9	48.82	7.69	−22	49.53	8.90	+2	106	89
23	−14	9	11.5	48.96	7.72	−23	49.53	8.90	−1	106	89
24	−12	+9	10.1	+49.09	+7.75	−19	49.53	−8.90	−4	106	89
25	− 8	8	8.5	49.23	7.79	−13	49.53	8.91	−6	107	89
26	− 2	8	6.8	49.37	7.82	− 4	49.52	8.91	−7	107	89
27	+ 3	7	4.7	49.51	7.85	+ 6	49.52	8.91	−6	107	89
28	+ 8	7	2.5	49.65	7.89	+13	49.52	8.91	−4	107	89
29	+11	7	0.3	49.78	7.92	+17	49.52	8.91	0	108	89
30	+11	+8	22.3	+49.92	+7.95	+17	49.52	−8.91	+3	108	89
31	+ 8	8	20.6	50.06	7.98	+13	49.52	8.91	+6	108	89
32	+ 3	+8	19.1	+50.20	+8.02	+ 6	49.52	−8.91	+7	108	89

Reduktionsgrößen 1939

für 12^h Sternzeit Greenwich

Welt-Zeit	t	A		A'	B		B'	C		D	
1939	s			in 0.00001	″		in 0″.001	″		″	
Jan. 0.225	−0.0028	+0.25064	343	−463	+7.067	0	−43	− 2.901	329	+20.225	60
1.222	−0.0001	0.25407	341	−519	7.067	1	− 8	3.230	328	20.165	66
2.220	+0.0026	0.25748	339	−481	7.066	1	+31	3.558	326	20.099	71
3.217	0.0054	0.26087	338	−351	7.065	2	+62	3.884	326	20.028	78
4.214	0.0081	0.26425	337	−152	7.063	3	+78	4.210	324	19.950	85
5.211	0.0108	0.26762	336	+ 74	7.060	3	+78	4.534	322	19.865	91
6.209	0.0136	+0.27098	334	+276	+7.057	4	+55	− 4.856	321	+19.774	97
7.206	0.0163	0.27432	332	+407	7.053	5	+18	5.177	319	19.677	103
8.203	0.0190	0.27764	331	+444	7.048	5	−23	5.496	318	19.574	110
9.200	0.0217	0.28095	329	+381	7.043	6	−58	5.814	316	19.464	116
10.198	0.0245	0.28424	326	+241	7.037	7	−77	6.130	314	19.348	121
11.195	0.0272	0.28750	323	+ 70	7.030	7	−79	6.444	312	19.227	127
12.192	0.0299	+0.29073	322	− 86	+7.023	7	−61	− 6.756	310	+19.100	134
13.190	0.0327	0.29395	320	−193	7.016	8	−30	7.066	308	18.966	140
14.187	0.0354	0.29715	319	−228	7.008	8	+ 8	7.374	305	18.826	145
15.184	0.0381	0.30034	316	−194	7.000	9	+40	7.679	302	18.681	151
16.181	0.0409	0.30350	312	−106	6.991	9	+65	7.981	300	18.530	157
17.179	0.0436	0.30662	309	+ 12	6.982	10	+76	8.281	297	18.373	163
18.176	0.0463	+0.30971	307	+130	+6.972	10	+73	− 8.578	295	+18.210	169
19.173	0.0490	0.31278	304	+230	6.962	11	+60	8.873	292	18.041	174
20.170	0.0518	0.31582	301	+291	6.951	11	+35	9.165	288	17.867	179
21.168	0.0545	0.31883	299	+311	6.940	11	+ 9	9.453	286	17.688	186
22.165	0.0572	0.32182	297	+278	6.929	12	−21	9.739	283	17.502	191
23.162	0.0600	0.32479	293	+197	6.917	12	−50	10.022	280	17.311	196
24.160	0.0627	+0.32772	290	+ 72	+6.905	13	−68	−10.302	276	+17.115	202
25.157	0.0654	0.33062	286	− 87	6.892	13	−77	10.578	273	16.913	206
26.154	0.0682	0.33348	284	−257	6.879	13	−73	10.851	269	16.707	211
27.151	0.0709	0.33632	281	−406	6.866	13	−53	11.120	266	16.496	217
28.149	0.0736	0.33913	278	−498	6.853	13	−23	11.386	262	16.279	223
29.146	0.0764	0.34191	274	−511	6.840	13	+14	11.648	258	16.056	227
30.143	0.0791	+0.34465	272	−433	+6.827	13	+47	−11.906	255	+15.829	231
31.140	0.0818	0.34737	268	−275	6.814	14	+72	12.161	252	15.598	237
Febr. 1.138	0.0845	0.35005	265	− 63	6.800	14	+79	12.413	247	15.361	241
2.135	0.0873	0.35270	262	+149	6.786	14	+65	12.660	242	15.120	246
3.132	0.0900	0.35532	259	+318	6.772	14	+35	12.902	239	14.874	251
4.129	0.0927	0.35791	255	+399	6.758	14	− 3	13.141	234	14.623	255
5.127	0.0955	+0.36046	251	+385	+6.744	14	−42	−13.375	231	+14.368	259
6.124	0.0982	0.36297	248	+285	6.730	14	−71	13.606	226	14.109	264
7.121	0.1009	0.36545	245	+130	6.716	14	−80	13.832	222	13.845	268
8.119	0.1037	0.36790	242	− 34	6.702	14	−70	14.054	218	13.577	272
9.116	0.1064	0.37032	239	−160	6.688	14	−45	14.272	213	13.305	277
10.113	0.1091	+0.37271		−224	+6.674		− 8	−14.485		+13.028	

Reduktionsgrößen 1939

für 12^h Sternzeit Greenwich

Welt-Zeit	*t*	*A*	Δ	*A'*	*B*	Δ	*B'*	*C*	Δ	*D*	Δ
1939	h			in 0.00001	″		in ″0.001	″		″	
Febr. 10.113	0.1091	+0.37271	235	−224	+6.674	13	− 8	−14.485	208	+13.028	280
11.110	0.1118	0.37506	232	−210	6.661	14	+28	14.693	204	12.748	283
12.108	0.1146	0.37738	229	−134	6.647	13	+59	14.897	200	12.465	288
13.105	0.1173	0.37967	226	− 18	6.634	13	+75	15.097	194	12.177	291
14.102	0.1200	0.38193	223	+112	6.621	13	+77	15.291	189	11.886	295
15.099	0.1228	0.38416	220	+224	6.608	13	+68	15.480	184	11.591	299
16.097	0.1255	+0.38636	218	+303	+6.595	13	+47	−15.664	179	+11.292	302
17.094	0.1282	0.38854	214	+336	6.582	12	+18	15.843	175	10.990	305
18.091	0.1310	0.39068	210	+319	6.570	11	−12	16.018	170	10.685	308
19.089	0.1337	0.39278	208	+251	6.559	11	−39	16.188	165	10.377	311
20.086	0.1364	0.39486	206	+137	6.548	11	−60	16.353	159	10.066	314
21.083	0.1392	0.39692	202	− 9	6.537	10	−73	16.512	154	9.752	317
22.080	0.1419	+0.39894	200	−170	+6.527	10	−76	−16.666	149	+ 9.435	320
23.078	0.1446	0.40094	197	−324	6.517	10	−61	16.815	144	9.115	322
24.075	0.1473	0.40291	195	−439	6.507	9	−35	16.959	138	8.793	325
25.072	0.1501	0.40486	193	−492	6.498	9	− 2	17.097	134	8.468	328
26.069	0.1528	0.40679	190	−457	6.489	9	+33	17.231	128	8.140	330
27.067	0.1555	0.40869	188	−342	6.480	9	+62	17.359	122	7.810	332
28.064	0.1583	+0.41057	187	−164	+6.471	8	+76	−17.481	117	+ 7.478	334
März 1.061	0.1610	0.41244	184	+ 36	6.463	7	+73	17.598	112	7.144	336
2.058	0.1637	0.41428	180	+219	6.456	6	+50	17.710	106	6.808	337
3.056	0.1665	0.41608	179	+333	6.450	5	+14	17.816	101	6.471	340
4.053	0.1692	0.41787	177	+361	6.445	5	−26	17.917	95	6.131	342
5.050	0.1719	0.41964	176	+297	6.440	5	−59	18.012	90	5.789	343
6.048	0.1746	+0.42140	175	+166	+6.435	4	−78	−18.102	85	+ 5.446	345
7.045	0.1774	0.42315	173	+ 7	6.431	3	−77	18.187	79	5.101	346
8.042	0.1801	0.42488	171	−136	6.428	3	−58	18.266	73	4.755	347
9.039	0.1828	0.42659	170	−227	6.425	3	−27	18.339	68	4.408	349
10.037	0.1856	0.42829	169	−241	6.422	2	+13	18.407	62	4.059	350
11.034	0.1883	0.42998	167	−183	6.420	1	+45	18.469	56	3.709	350
12.031	0.1910	+0.43165	166	− 72	+6.419	0	+69	−18.525	51	+ 3.359	351
13.028	0.1938	0.43331	165	+ 63	6.419	0	+78	18.576	45	3.008	352
14.026	0.1965	0.43496	165	+193	6.419	1	+74	18.621	40	2.656	352
15.023	0.1992	0.43661	164	+294	6.420	2	+58	18.661	34	2.304	353
16.020	0.2020	0.43825	163	+349	6.422	2	+32	18.695	28	1.951	353
17.018	0.2047	0.43988	162	+351	6.424	3	0	18.723	22	1.598	354
18.015	0.2074	+0.44150	162	+297	+6.427	3	−29	−18.745	17	+ 1.244	353
19.012	0.2101	0.44312	162	+199	6.430	4	−54	18.762	11	0.891	355
20.009	0.2129	0.44474	162	+ 62	6.434	5	−69	18.773	6	0.536	354
21.007	0.2156	0.44636	162	− 94	6.439	6	−73	18.779	0	+ 0.182	353
22.004	0.2183	0.44798	161	−247	6.445	6	−66	18.779	6	− 0.171	354
23.001	0.2211	+0.44959		−375	+6.451		−44	−18.773		− 0.525	

Reductionsgrößen 1939

für 12^h Sternzeit Greenwich

Welt-Zeit	t	A	Δ	A′	B	Δ	B′	C	Δ	D	Δ
1939	s			in 0.00001	″		in 0.001	″		″	
März 23.001	0.2211	+0.44959	162	−375	+6.451	6	−44	−18.773	11	− 0.525	353
23.998	0.2238	0.45121	163	−447	6.457	7	−15	18.762	16	0.878	353
24.996	0.2265	0.45284	162	−443	6.464	8	+21	18.746	22	1.231	352
25.993	0.2293	0.45446	162	−360	6.472	9	+51	18.724	28	1.583	351
26.990	0.2320	0.45608	163	−212	6.481	10	+71	18.696	34	1.934	351
27.988	0.2347	0.45771	164	− 25	6.491	11	+75	18.662	39	2.285	350
28.985	0.2374	+0.45935	164	+155	+6.502	11	+58	−18.623	44	− 2.635	349
29.982	0.2402	0.46099	165	+287	6.513	11	+29	18.579	49	2.984	348
30.979	0.2429	0.46264	167	+343	6.524	11	− 9	18.530	56	3.332	346
31.977	0.2456	0.46431	167	+308	6.535	12	−45	18.474	61	3.678	345
April 1.974	0.2484	0.46598	168	+200	6.547	13	−71	18.413	66	4.023	344
2.971	0.2511	0.46766	170	+ 45	6.560	14	−78	18.347	71	4.367	342
3.968	0.2538	+0.46936	171	−109	+6.574	14	−66	−18.276	77	− 4.709	341
4.966	0.2566	0.47107	172	−220	6.588	15	−40	18.199	82	5.050	339
5.963	0.2593	0.47279	174	−266	6.603	16	− 6	18.117	88	5.389	338
6.960	0.2620	0.47453	175	−239	6.619	17	+31	18.029	92	5.727	336
7.957	0.2648	0.47628	177	−145	6.636	17	+61	17.937	97	6.063	334
8.955	0.2675	0.47805	178	− 13	6.653	17	+78	17.840	103	6.397	331
9.952	0.2702	+0.47983	181	+129	+6.670	17	+79	−17.737	109	− 6.728	329
10.949	0.2729	0.48164	183	+251	6.687	18	+66	17.628	113	7.057	327
11.947	0.2757	0.48347	184	+332	6.705	18	+43	17.515	118	7.384	325
12.944	0.2784	0.48531	186	+361	6.723	19	+13	17.397	123	7.709	322
13.941	0.2811	0.48717	188	+331	6.742	19	−18	17.274	128	8.031	320
14.938	0.2839	0.48905	190	+249	6.761	20	−46	17.146	133	8.351	317
15.936	0.2866	+0.49095	193	+123	+6.781	20	−66	−17.013	138	− 8.668	314
16.933	0.2893	0.49288	195	− 32	6.801	21	−75	16.875	143	8.982	312
17.930	0.2921	0.49483	197	−191	6.822	21	−72	16.732	148	9.294	309
18.927	0.2948	0.49680	200	−329	6.843	21	−54	16.584	152	9.603	306
19.925	0.2975	0.49880	202	−417	6.864	21	−26	16.432	156	9.909	303
20.922	0.3002	0.50082	205	−436	6.885	22	+ 7	16.276	162	10.212	300
21.919	0.3030	+0.50287	208	−376	+6.907	23	+41	−16.114	166	−10.512	296
22.917	0.3057	0.50495	210	−244	6.930	23	+66	15.948	171	10.808	293
23.914	0.3084	0.50705	212	− 66	6.953	22	+74	15.777	175	11.101	290
24.911	0.3112	0.50917	214	+117	6.975	23	+66	15.602	179	11.391	286
25.908	0.3139	0.51131	217	+269	6.998	23	+40	15.423	183	11.677	283
26.906	0.3166	0.51348	221	+345	7.021	23	+ 5	15.240	188	11.960	280
27.903	0.3194	+0.51569	223	+338	+7.044	23	−30	−15.052	192	−12.240	276
28.900	0.3221	0.51792	226	+251	7.067	24	−61	14.860	196	12.516	272
29.897	0.3248	0.52018	228	+104	7.091	24	−75	14.664	201	12.788	268
30.895	0.3276	0.52246	230	− 55	7.115	24	−71	14.463	204	13.056	264
Mai 1.892	0.3303	0.52476	234	−191	7.139	24	−52	14.259	208	13.320	260
2.889	0.3330	+0.52710		−272	+7.163		−21	−14.051		−13.580	

Reduktionsgrößen 1939

für 12^h Sternzeit Greenwich

Welt-Zeit	*t*	*A*		*A′*	*B*		*B′*	*C*		*D*	
1939	s			in 0.00001	″		in 0.001 ″	″		″	
Mai 2.889	0.3330	+0.52710	238	−272	+7.163	24	−21	−14.051	212	−13.580	257
3.886	0.3357	0.52948	240	−275	7.187	24	+17	13.839	216	13.837	253
4.884	0.3385	0.53188	241	−208	7.211	24	+48	13.623	220	14.090	249
5.881	0.3412	0.53429	244	− 91	7.235	24	+71	13.403	224	14.339	244
6.878	0.3439	0.53673	248	+ 50	7.259	24	+78	13.179	227	14.583	240
7.876	0.3467	0.53921	252	+185	7.283	24	+73	12.952	230	14.823	235
8.873	0.3494	+0.54173	254	+289	+7.307	24	+54	−12.722	234	−15.058	231
9.870	0.3521	0.54427	256	+346	7.331	24	+25	12.488	238	15.289	227
10.867	0.3549	0.54683	258	+345	7.355	23	− 7	12.250	241	15.516	222
11.865	0.3576	0.54941	261	+284	7.378	24	−35	12.009	245	15.738	218
12.862	0.3603	0.55202	265	+173	7.402	24	−59	11.764	248	15.956	213
13.859	0.3630	0.55467	267	+ 27	7.426	23	−74	11.516	251	16.169	208
14.856	0.3658	+0.55734	268	−139	+7.449	23	−75	−11.265	254	−16.377	204
15.854	0.3685	0.56002	272	−291	7.472	23	−63	11.011	257	16.581	200
16.851	0.3712	0.56274	276	−404	7.495	22	−39	10.754	259	16.781	194
17.848	0.3740	0.56550	278	−449	7.517	22	− 6	10.495	262	16.975	189
18.846	0.3767	0.56828	280	−413	7.539	21	+30	10.233	265	17.164	184
19.843	0.3794	0.57108	282	−300	7.560	22	+58	9.968	268	17.348	180
20.840	0.3822	+0.57390	284	−127	+7.582	22	+72	− 9.700	271	−17.528	175
21.837	0.3849	0.57674	287	+ 69	7.604	21	+73	9.429	273	17.703	169
22.835	0.3876	0.57961	290	+242	7.625	21	+52	9.156	275	17.872	165
23.832	0.3904	0.58251	292	+355	7.646	21	+20	8.881	278	18.037	159
24.829	0.3931	0.58543	293	+382	7.667	20	−18	8.603	280	18.196	154
25.826	0.3958	0.58836	297	+319	7.687	20	−52	8.323	283	18.350	149
26.824	0.3985	+0.59133	299	+187	+7.707	20	−71	− 8.040	285	−18.499	144
27.821	0.4013	0.59432	300	+ 22	7.727	19	−76	7.755	286	18.643	138
28.818	0.4040	0.59732	302	−130	7.746	18	−60	7.469	289	18.781	133
29.815	0.4067	0.60034	304	−238	7.764	18	−31	7.180	290	18.914	128
30.813	0.4095	0.60338	306	−276	7.782	18	+ 1	6.890	292	19.042	123
31.810	0.4122	0.60644	308	−240	7.800	17	+37	6.598	295	19.165	118
Juni 1.807	0.4149	+0.60952	309	−144	+7.817	17	+62	− 6.303	296	−19.283	112
2.805	0.4177	0.61261	311	− 14	7.834	16	+77	6.007	298	19.395	106
3.802	0.4204	0.61572	312	+124	7.850	15	+76	5.709	298	19.501	101
4.799	0.4231	0.61884	314	+237	7.865	15	+61	5.411	300	19.602	96
5.796	0.4258	0.62198	316	+315	7.880	14	+37	5.111	302	19.698	91
6.794	0.4286	0.62514	316	+337	7.894	14	+ 8	4.809	304	19.789	84
7.791	0.4313	+0.62830	317	+303	+7.908	14	−22	− 4.505	304	−19.873	79
8.788	0.4340	0.63147	319	+217	7.922	13	−50	4.201	305	19.952	73
9.785	0.4368	0.63466	320	+ 82	7.935	12	−69	3.896	306	20.025	68
10.783	0.4395	0.63786	322	− 81	7.947	12	−77	3.590	308	20.093	62
11.780	0.4422	0.64108	322	−245	7.959	11	−70	3.282	308	20.155	57
12.777	0.4450	+0.64430		−383	+7.970		−53	− 2.974		−20.212	

Reduktionsgrößen 1939

für 12^h Sternzeit Greenwich

Welt-Zeit	t	A		A'	B		B'	C		D	
1939	s			in 0.00001	"		in 0.001	"		"	
Juni 12.777	0.4450	+0.64430	322	−383	+7.970	11	−53	− 2.974	308	−20.212	51
13.775	0.4477	0.64752	323	−467	7.981	10	−20	2.666	309	20.263	45
14.772	0.4504	0.65075	324	−471	7.991	9	+14	2.357	310	20.308	40
15.769	0.4532	0.65399	324	−388	8.000	9	+48	2.047	311	20.348	35
16.766	0.4559	0.65723	325	−227	8.009	9	+71	1.736	311	20.383	29
17.764	0.4586	0.66048	325	− 28	8.018	8	+77	1.425	311	20.412	22
18.761	0.4613	+0.66373	326	+174	+8.026	7	+65	− 1.114	311	−20.434	17
19.758	0.4641	0.66699	326	+327	8.033	6	+34	0.803	312	20.451	12
20.755	0.4668	0.67025	327	+403	8.039	6	− 4	0.491	312	20.463	6
21.753	0.4695	0.67352	326	+379	8.045	5	−41	− 0.179	312	20.469	0
22.750	0.4723	0.67678	326	+273	8.050	5	−68	+ 0.133	312	20.469	5
23.747	0.4750	0.68004	325	+116	8.055	4	−77	0.445	312	20.464	11
24.744	0.4777	+0.68329	326	− 46	+8.059	3	−69	+ 0.757	311	−20.453	16
25.742	0.4805	0.68655	325	−178	8.062	3	−44	1.068	311	20.437	22
26.739	0.4832	0.68980	325	−247	8.065	2	−11	1.379	311	20.415	28
27.736	0.4859	0.69305	324	−239	8.067	2	+25	1.690	310	20.387	34
28.734	0.4886	0.69629	324	−164	8.069	1	+55	2.000	310	20.353	39
29.731	0.4914	0.69953	323	− 46	8.070	1	+70	2.310	310	20.314	44
30.728	0.4941	+0.70276	322	+ 85	+8.071	0	+76	+ 2.620	308	−20.270	50
Juli 1.725	0.4968	0.70598	322	+205	8.071	1	+68	2.928	307	20.220	56
2.723	0.4996	0.70920	320	+293	8.070	1	+47	3.235	306	20.164	61
3.720	0.5023	0.71240	319	+330	8.069	2	+18	3.541	305	20.103	67
4.717	0.5050	0.71559	319	+318	8.067	3	−10	3.846	305	20.036	72
5.714	0.5078	0.71878	318	+252	8.064	3	−39	4.151	304	19.964	78
6.712	0.5105	+0.72196	316	+139	+8.061	3	−58	+ 4.455	302	−19.886	83
7.709	0.5132	0.72512	314	− 13	8.058	4	−73	4.757	301	19.803	89
8.706	0.5160	0.72826	313	−181	8.054	5	−73	5.058	299	19.714	95
9.704	0.5187	0.73139	313	−337	8.049	5	−61	5.357	298	19.619	100
10.701	0.5214	0.73452	311	−455	8.044	6	−35	5.655	296	19.519	104
11.698	0.5241	0.73763	308	−502	8.038	6	− 2	5.951	295	19.415	110
12.695	0.5269	+0.74071	307	−464	+8.032	6	+33	+ 6.246	292	−19.305	116
13.693	0.5296	0.74378	304	−341	8.026	7	+62	6.538	291	19.189	121
14.690	0.5323	0.74682	303	−155	8.019	7	+76	6.829	290	19.068	126
15.687	0.5351	0.74985	302	+ 54	8.012	8	+72	7.119	288	18.942	132
16.684	0.5378	0.75287	299	+243	8.004	8	+49	7.407	285	18.810	136
17.682	0.5405	0.75586	297	+362	7.996	9	+14	7.692	284	18.674	142
18.679	0.5433	+0.75883	295	+394	+7.987	9	−25	+ 7.976	282	−18.532	147
19.676	0.5460	0.76178	293	+328	7.978	9	−58	8.258	279	18.385	152
20.674	0.5487	0.76471	291	+195	7.969	10	−75	8.537	276	18.233	157
21.671	0.5514	0.76762	289	+ 31	7.959	10	−75	8.813	274	18.076	163
22.668	0.5542	0.77051	287	−117	7.949	10	−56	9.087	272	17.913	167
23.665	0.5569	+0.77338		−211	+7.939		−26	+ 9.359		−17.746	

Reduktionsgrößen 1939

für 12^h Sternzeit Greenwich

Welt-Zeit	t	A		A'	B		B'	C		D	
1939	s			in 0.00001	"		in 0".001	"		"	
Juli 23.665	0.5569	+0.77338	284	−211	+7.939	11	−26	+ 9.359	269	−17.746	172
24.663	0.5596	0.77622	281	−229	7.928	11	+13	9.628	267	17.574	176
25.660	0.5624	0.77903	279	−175	7.917	12	+46	9.895	264	17.398	182
26.657	0.5651	0.78182	276	− 67	7.905	12	+66	10.159	261	17.216	187
27.654	0.5678	0.78458	274	+ 64	7.893	12	+77	10.420	258	17.029	192
28.652	0.5706	0.78732	272	+193	7.881	12	+71	10.678	256	16.837	196
29.649	0.5733	+0.79004	270	+287	+7.869	13	+53	+10.934	253	−16.641	201
30.646	0.5760	0.79274	266	+339	7.856	12	+29	11.187	250	16.440	205
31.643	0.5788	0.79540	262	+340	7.844	13	0	11.437	247	16.235	209
Aug. 1.641	0.5815	0.79802	260	+289	7.831	13	−27	11.684	243	16.026	214
2.638	0.5842	0.80062	258	+190	7.818	13	−51	11.927	240	15.812	219
3.635	0.5869	0.80320	256	+ 57	7.805	13	−66	12.167	237	15.593	223
4.633	0.5897	+0.80576	254	−102	+7.792	14	−71	+12.404	233	−15.370	228
5.630	0.5924	0.80830	251	−263	7.778	13	−66	12.637	230	15.142	231
6.627	0.5951	0.81081	247	−398	7.765	13	−47	12.867	226	14.911	236
7.624	0.5979	0.81328	245	−485	7.752	14	−16	13.093	223	14.675	240
8.622	0.6006	0.81573	242	−494	7.738	14	+17	13.316	219	14.435	244
9.619	0.6033	0.81815	239	−419	7.724	13	+50	13.535	215	14.191	249
10.616	0.6061	+0.82054	235	−271	+7.711	14	+71	+13.750	212	−13.942	253
11.613	0.6088	0.82289	233	− 75	7.697	13	+75	13.962	208	13.689	256
12.611	0.6115	0.82522	231	+124	7.684	13	+62	14.170	204	13.433	259
13.608	0.6142	0.82753	228	+274	7.671	14	+32	14.374	200	13.174	264
14.605	0.6170	0.82981	226	+354	7.657	13	− 6	14.574	196	12.910	268
15.603	0.6197	0.83207	223	+336	7.644	13	−45	14.770	192	12.642	271
16.600	0.6224	+0.83430	220	+235	+7.631	13	−70	+14.962	187	−12.371	275
17.597	0.6252	0.83650	218	+ 84	7.618	14	−80	15.149	184	12.096	278
18.594	0.6279	0.83868	216	− 68	7.604	13	−69	15.333	179	11.818	281
19.592	0.6306	0.84084	212	−185	7.591	12	−41	15.512	175	11.537	284
20.589	0.6334	0.84296	208	−232	7.579	12	− 5	15.687	171	11.253	288
21.586	0.6361	0.84504	206	−199	7.567	12	+33	15.858	167	10.965	292
22.583	0.6388	+0.84710	203	−102	+7.555	11	+62	+16.025	163	−10.673	295
23.581	0.6416	0.84913	202	+ 32	7.544	12	+76	16.188	158	10.378	298
24.578	0.6443	0.85115	201	+173	7.532	11	+78	16.346	153	10.080	301
25.575	0.6470	0.85316	197	+289	7.521	11	+63	16.499	148	9.779	303
26.572	0.6497	0.85513	194	+358	7.510	10	+38	16.647	144	9.476	306
27.570	0.6525	0.85707	192	+371	7.500	10	+ 8	16.791	139	9.170	309
28.567	0.6552	+0.85899	190	+335	+7.490	10	−19	+16.930	134	− 8.861	311
29.564	0.6579	0.86089	187	+249	7.480	10	−44	17.064	129	8.550	314
30.562	0.6607	0.86276	185	+126	7.470	9	−60	17.193	124	8.236	317
31.559	0.6634	0.86461	183	− 25	7.461	8	−71	17.317	120	7.919	319
Sept. 1.556	0.6661	0.86644	182	−179	7.453	8	−68	17.437	116	7.600	321
2.553	0.6689	+0.86826		−325	+7.445		−54	+17.553		− 7.279	

Reduktionsgrößen 1939

für 12ʰ Sternzeit Greenwich

Welt-Zeit	t	A		A′	B		B′	C		D	
1939	s			in 0.00001	″		in 0.″001	″		″	
Sept. 2.553	0.6689	+0.86826	180	−325	+7.445	8	−54	+17.553	110	−7.279	324
3.551	0.6716	0.87006	178	−430	7.437	8	−28	17.663	105	6.955	326
4.548	0.6743	0.87184	176	−473	7.429	7	+ 3	17.768	100	6.629	327
5.545	0.6770	0.87360	175	−443	7.422	6	+35	17.868	95	6.302	329
6.542	0.6798	0.87535	173	−334	7.416	6	+61	17.963	90	5.973	332
7.540	0.6825	0.87708	171	−170	7.410	5	+73	18.053	85	5.641	334
8.537	0.6852	+0.87879	169	+ 17	+7.405	5	+70	+18.138	80	−5.307	335
9.534	0.6880	0.88048	168	+186	7.400	4	+46	18.218	74	4.972	336
10.532	0.6907	0.88216	167	+292	7.396	3	+12	18.292	69	4.636	338
11.529	0.6934	0.88383	165	+314	7.393	3	−28	18.361	65	4.298	339
12.526	0.6962	0.88548	165	+248	7.390	3	−60	18.426	59	3.959	341
13.523	0.6989	0.88713	164	+117	7.387	2	−76	18.485	53	3.618	342
14.521	0.7016	+0.88877	162	− 37	+7.385	1	−76	+18.538	48	−3.276	343
15.518	0.7043	0.89039	161	−171	7.384	1	−57	18.586	43	2.933	344
16.515	0.7071	0.89200	161	−244	7.383	0	−23	18.629	38	2.589	345
17.512	0.7098	0.89361	160	−243	7.383	0	+16	18.667	32	2.244	346
18.510	0.7125	0.89521	160	−162	7.383	1	+51	18.699	27	1.898	347
19.507	0.7153	0.89681	160	− 31	7.384	2	+71	18.726	21	1.551	347
20.504	0.7180	+0.89841	159	+124	+7.386	3	+75	+18.747	16	−1.204	348
21.501	0.7207	0.90000	158	+259	7.389	3	+71	18.763	11	0.856	349
22.499	0.7235	0.90158	158	+356	7.392	4	+49	18.774	5	0.507	349
23.496	0.7262	0.90316	158	+398	7.396	5	+21	18.779	0	−0.158	349
24.493	0.7289	0.90474	158	+380	7.401	5	− 8	18.779	6	+0.191	349
25.491	0.7317	0.90632	158	+307	7.406	6	−35	18.773	11	0.540	350
26.488	0.7344	+0.90790	159	+189	+7.412	6	−56	+18.762	16	+0.890	349
27.485	0.7371	0.90949	159	+ 47	7.418	7	−68	18.746	22	1.239	349
28.482	0.7398	0.91108	159	−107	7.425	7	−69	18.724	28	1.588	348
29.480	0.7426	0.91267	159	−254	7.432	8	−57	18.696	33	1.936	348
30.477	0.7453	0.91426	160	−366	7.440	9	−38	18.663	39	2.284	348
Okt. 1.474	0.7480	0.91586	161	−431	7.449	10	− 9	18.624	44	2.632	347
2.471	0.7508	+0.91747	162	−427	+7.459	10	+25	+18.580	49	+2.979	346
3.469	0.7535	0.91909	163	−352	7.469	11	+52	18.531	55	3.325	345
4.466	0.7562	0.92072	164	−214	7.480	12	+70	18.476	61	3.670	345
5.463	0.7590	0.92236	166	− 43	7.492	12	+71	18.415	66	4.015	344
6.461	0.7617	0.92402	166	+123	7.504	13	+55	18.349	71	4.359	343
7.458	0.7644	0.92568	168	+245	7.517	13	+27	18.278	77	4.702	342
8.455	0.7671	+0.92736	169	+296	+7.530	14	−10	+18.201	82	+5.044	340
9.452	0.7699	0.92905	170	+260	7.544	14	−45	18.119	88	5.384	339
10.450	0.7726	0.93075	173	+148	7.558	15	−70	18.031	93	5.723	337
11.447	0.7753	0.93248	174	+ 1	7.573	15	−78	17.938	98	6.060	336
12.444	0.7781	0.93422	175	−151	7.588	16	−65	17.840	104	6.396	335
13.441	0.7808	+0.93597		−250	+7.604		−39	+17.736		+6.731	

Reduktionsgrößen 1939

für 12^h Sternzeit Greenwich

Welt-Zeit	*t*	*A*		*A'*	*B*		*B'*	*C*		*D*	
1939	h			in 0.00001	″		in 0.001	″		″	
Okt. 13.441	0.7808	+0.93597	176	−250	+7.604	16	−39	+17.736	109	+ 6.731	332
14.439	0.7835	0.93773	179	−281	7.620	17	− 1	17.627	115	7.063	330
15.436	0.7863	0.93952	182	−234	7.637	18	+35	17.512	120	7.393	328
16.433	0.7890	0.94134	184	−117	7.655	18	+63	17.392	125	7.721	326
17.430	0.7917	0.94318	187	+ 37	7.673	18	+79	17.267	130	8.047	324
18.428	0.7945	0.94505	188	+194	7.691	19	+76	17.137	135	8.371	322
19.425	0.7972	+0.94693	190	+319	+7.710	19	+60	+17.002	140	+ 8.693	319
20.422	0.7999	0.94883	192	+394	7.729	20	+34	16.862	146	9.012	317
21.420	0.8026	0.95075	196	+406	7.749	20	+ 3	16.716	150	9.329	315
22.417	0.8054	0.95271	198	+354	7.769	20	−26	16.566	156	9.644	312
23.414	0.8081	0.95469	200	+253	7.789	21	−50	16.410	161	9.956	308
24.411	0.8108	0.95669	204	+113	7.810	21	−65	16.249	166	10.264	306
25.409	0.8136	+0.95873	207	− 45	+7.831	22	−71	+16.083	171	+10.570	303
26.406	0.8163	0.96080	209	−197	7.853	22	−65	15.912	175	10.873	299
27.403	0.8190	0.96289	212	−323	7.875	22	−48	15.737	180	11.172	296
28.400	0.8218	0.96501	215	−401	7.897	22	−18	15.557	186	11.468	293
29.398	0.8245	0.96716	217	−417	7.919	23	+13	15.371	190	11.761	289
30.395	0.8272	0.96933	220	−359	7.942	23	+42	15.181	195	12.050	286
31.392	0.8299	+0.97153	223	−240	+7.965	24	+64	+14.986	199	+12.336	283
Nov. 1.390	0.8327	0.97376	226	− 78	7.989	23	+73	14.787	204	12.619	279
2.387	0.8354	0.97602	230	+ 90	8.012	23	+62	14.583	209	12.898	275
3.384	0.8381	0.97832	233	+227	8.035	23	+37	14.374	213	13.173	271
4.381	0.8409	0.98065	237	+301	8.058	24	+ 5	14.161	217	13.444	267
5.379	0.8436	0.98302	240	+291	8.082	24	−32	13.944	222	13.711	264
6.376	0.8463	+0.98542	242	+200	+8.106	24	−61	+13.722	226	+13.975	259
7.373	0.8491	0.98784	245	+ 61	8.130	24	−74	13.496	230	14.234	255
8.370	0.8518	0.99029	249	− 97	8.154	24	−72	13.266	234	14.489	251
9.368	0.8545	0.99278	252	−227	8.178	24	−50	13.032	239	14.740	246
10.365	0.8573	0.99530	254	−294	8.202	24	−17	12.793	242	14.986	241
11.362	0.8600	0.99784	258	−283	8.226	24	+20	12.551	247	15.227	237
12.360	0.8627	+1.00042	262	−196	+8.250	23	+52	+12.304	251	+15.464	232
13.357	0.8654	1.00304	265	− 57	8.273	24	+72	12.053	254	15.696	228
14.354	0.8682	1.00569	268	+103	8.297	24	+79	11.799	257	15.924	224
15.351	0.8709	1.00837	271	+248	8.321	23	+69	11.542	262	16.148	218
16.349	0.8736	1.01108	275	+351	8.344	23	+45	11.280	265	16.366	213
17.346	0.8764	1.01383	277	+398	8.367	23	+18	11.015	269	16.579	208
18.343	0.8791	+1.01660	280	+377	+8.390	23	−13	+10.746	272	+16.787	203
19.340	0.8818	1.01940	283	+300	8.413	22	−39	10.474	276	16.990	198
20.338	0.8846	1.02223	285	+173	8.435	22	−62	10.198	279	17.188	194
21.335	0.8873	1.02508	289	+ 16	8.457	22	−72	9.919	281	17.382	188
22.332	0.8900	1.02797	292	−145	8.479	21	−68	9.638	284	17.570	182
23.329	0.8927	+1.03089		−291	+8.500		−55	+ 9.354		+17.752	

Reduktionsgrößen 1939

für 12^h Sternzeit Greenwich

Welt-Zeit	t	A	Δ	A'	B	Δ	B'	C	Δ	D	Δ
1939	s			in 0.00001	″		in 0.″001	″		″	
Nov. 23.329	0.8927	+1.03089	294	−291	+8.500	21	−55	+9.354	288	+17.752	176
24.327	0.8955	1.03383	297	−388	8.521	21	−31	9.066	291	17.928	171
25.324	0.8982	1.03680	301	−427	8.542	20	0	8.775	294	18.099	165
26.321	0.9009	1.03981	304	−394	8.562	20	+32	8.481	297	18.264	160
27.319	0.9037	1.04285	305	−288	8.582	19	+58	8.184	299	18.424	154
28.316	0.9064	1.04590	307	−128	8.601	19	+72	7.885	302	18.578	148
29.313	0.9091	+1.04897	310	+ 49	+8.620	19	+67	+7.583	304	+18.726	143
30.310	0.9119	1.05207	313	+209	8.639	19	+48	7.279	306	18.869	137
Dez. 1.308	0.9146	1.05520	315	+310	8.658	18	+16	6.973	309	19.006	131
2.305	0.9173	1.05835	316	+334	8.676	17	−17	6.664	311	19.137	125
3.302	0.9201	1.06151	319	+273	8.693	16	−51	6.353	313	19.262	119
4.299	0.9228	1.06470	322	+142	8.709	16	−71	6.040	315	19.381	114
5.297	0.9255	+1.06792	323	− 17	+8.725	15	−74	+5.725	317	+19.495	107
6.294	0.9282	1.07115	325	−166	8.740	15	−60	5.408	319	19.602	101
7.291	0.9310	1.07440	327	−265	8.755	14	−30	5.089	321	19.703	95
8.289	0.9337	1.07767	328	−289	8.769	14	+ 5	4.768	322	19.798	89
9.286	0.9364	1.08095	330	−238	8.783	13	+37	4.446	323	19.887	83
10.283	0.9392	1.08425	331	−124	8.796	12	+64	4.123	325	19.970	76
11.280	0.9419	+1.08756	333	+ 22	+8.808	11	+77	+3.798	326	+20.046	70
12.278	0.9446	1.09089	334	+174	8.819	11	+73	3.472	327	20.116	64
13.275	0.9474	1.09423	335	+294	8.830	10	+55	3.145	328	20.180	58
14.272	0.9501	1.09758	336	+366	8.840	10	+29	2.817	329	20.238	51
15.269	0.9528	1.10094	337	+374	8.850	9	0	2.488	331	20.289	45
16.267	0.9555	1.10431	337	+324	8.859	8	−29	2.157	331	20.334	39
17.264	0.9583	+1.10768	338	+221	+8.867	8	−53	+1.826	331	+20.373	32
18.261	0.9610	1.11106	339	+ 77	8.875	7	−70	1.495	332	20.405	25
19.258	0.9637	1.11445	339	− 88	8.882	6	−71	1.163	332	20.430	19
20.256	0.9665	1.11784	340	−245	8.888	5	−63	0.831	333	20.449	13
21.253	0.9692	1.12124	340	−371	8.893	4	−42	0.498	333	20.462	7
22.250	0.9719	1.12464	340	−444	8.897	4	−12	+0.165	333	20.469	0
23.248	0.9747	+1.12804	340	−440	+8.901	3	+21	−0.168	332	+20.469	7
24.245	0.9774	1.13144	339	−362	8.904	3	+50	0.500	333	20.462	12
25.242	0.9801	1.13483	340	−215	8.907	2	+69	0.833	333	20.450	19
26.239	0.9829	1.13823	339	− 31	8.909	1	+73	1.166	332	20.431	26
27.237	0.9856	1.14162	339	+150	8.910	0	+59	1.498	332	20.405	32
28.234	0.9883	1.14501	338	+288	8.910	0	+31	1.830	331	20.373	38
29.231	0.9910	+1.14839	338	+354	+8.910	1	− 5	−2.161	331	+20.335	45
30.228	0.9938	1.15177	337	+330	8.909	2	−40	2.492	330	20.290	52
31.226	0.9965	1.15514	335	+228	8.907	3	−65	2.822	328	20.238	58
32.223	0.9992	1.15849	335	+ 74	8.904	3	−76	3.150	328	20.180	64
33.220	1.0020	1.16184	333	− 84	8.901	4	−67	3.478	327	20.116	70
34.218	1.0047	+1.16517		−209	+8.897		−43	−3.805		+20.046	

Übertragung mittlerer Sternörter

von dem Äquinoktium t_1 auf $t_2 = 1939.0$

t_1	$m^s(t_2-t_1)$	$n^s(t_2-t_1)$	$n''(t_2-t_1)$	$\log n^s(t_2-t_1)$	$\log n''(t_2-t_1)$
1755	+9ᵐ 25ˢ.128	+245ˢ.964	+3689″.45	2.390871	3.566962
1790	7 37.680	199.162	2987.43	2.299206	3.475298
1800	7 6.976	185.792	2786.87	2.269027	3.445117
1810	6 36.270	172.421	2586.32	2.236591	3.412682
1825	5 50.208	152.368	2285.51	2.182893	3.358983
1830	+5 34.853	+145.683	+2185.25	2.163409	3.339501
1835	5 19.497	138.999	2084.99	2.143012	3.319104
1840	5 4.142	132.315	1984.73	2.121609	3.297702
1845	4 48.786	125.631	1884.47	2.099097	3.275189
1850	4 33.428	118.947	1784.21	2.075353	3.251446
1855	+4 18.072	+112.264	+1683.96	2.050241	3.226332
1860	4 2.714	105.580	1583.70	2.023582	3.199673
1865	3 47.355	98.897	1483.45	1.995183	3.171273
1870	3 31.997	92.214	1383.20	1.964797	3.140885
1875	3 16.638	85.531	1282.96	1.932124	3.108213
1880	+3 1.278	+ 78.848	+1182.72	1.89679	3.072882
1885	2 45.918	72.165	1082.47	1.85833	3.034416
1890	2 30.558	65.482	982.23	1.81612	2.992213
1895	2 15.197	58.800	882.00	1.76938	2.945469
1900	1 59.835	52.117	781.76	1.71698	2.893073
1905	+1 44.473	+ 45.435	+ 681.53	1.65739	2.83348
1910	1 29.111	38.753	581.30	1.58831	2.76440
1915	1 13.748	32.071	481.07	1.50611	2.68221
1920	0 58.385	25.390	380.84	1.40466	2.58074
1925	0 43.021	18.708	280.62	1.27203	2.44812
1930	+0 27.657	+ 12.026	+ 180.40	1.08012	2.25624
1935	+0 12.292	+ 5.345	+ 80.18	0.72795	1.90407
1940	−0 3.073	− 1.336	− 20.04	0.12581n	1.30190n

Sind α_1, δ_1 die Koordinaten für t_1 und α_2, δ_2 die für $t_2 = 1939.0$, ist ferner α', δ' der genäherte Sternort für die Zeit

$$\frac{1}{2}(t_1 + t_2),$$

so ist

$$\alpha_2 = \alpha_1 + m^s(t_2 - t_1) + [n^s(t_2 - t_1)] \sin \alpha' \operatorname{tg} \delta'$$
$$\delta_2 = \delta_1 + [n''(t_2 - t_1)] \cos \alpha'$$

Übertragung mittlerer Polsternörter

von dem Äquinoktium t_1 auf $t_2 = 1939.0$

t_1	$90° - (N)$	$(m) + (N) - 90°$	(n)
	′ ″	′ ″	′ ″
1755	+70 37.23	+70 39.92	+61 29.19
1790	57 11.78	57 13.54	49 47.29
1800	53 21.60	53 23.13	46 26.76
1810	49 31.40	49 32.72	43 6.23
1825	43 46.07	43 47.10	38 5.45
1830	+41 50.95	+41 51.89	+36 25.20
1835	39 55.82	39 56.68	34 44.94
1840	38 0.69	38 1.47	33 4.68
1845	36 5.56	36 6.25	31 24.43
1850	34 10.41	34 11.04	29 44.18
1855	+32 15.27	+32 15.82	+28 3.93
1860	30 20.12	30 20.61	26 23.68
1865	28 24.96	28 25.39	24 43.44
1870	26 29.79	26 30.17	23 3.19
1875	24 34.62	24 34.95	21 22.95
1880	+22 39.45	+22 39.73	+19 42.71
1885	20 44.27	20 44.51	18 2.46
1890	18 49.08	18 49.28	16 22.23
1895	16 53.89	16 54.05	14 41.99
1900	14 58.70	14 58.83	13 1.76
1905	+13 3.50	+13 3.60	+11 21.52
1910	11 8.30	11 8.37	9 41.30
1915	9 13.08	9 13.13	8 1.07
1920	7 17.87	7 17.90	6 20.85
1925	5 22.65	5 22.66	4 40.62
1930	+ 3 27.42	+ 3 27.43	+ 3 0.40
1935	+ 1 32.19	+ 1 32.19	+ 1 20.18
1940	− 0 23.05	− 0 23.05	− 0 20.04

Sind α_1, δ_1 die Koordinaten für t_1 und α_2, δ_2 jene für $t_2 = 1939.0$, so hat man

zur Reduktion von dem Äquinoktium t_1 auf t_2:

$$a_1 = \alpha_1 + [90° - (N)]$$

$$p_1 = \left(\operatorname{tang} \delta_1 + \cos a_1 \operatorname{tang} \tfrac{1}{2}(n)\right) \sin (n)$$

$$\operatorname{tang} \Delta a_1 = \frac{p_1 \sin a_1}{1 - p_1 \cos a_1}$$

$$\alpha_2 = a_1 + [(m) + (N) - 90°] + \Delta a_1$$

$$\operatorname{tang} \tfrac{1}{2} (\delta_2 - \delta_1) = \cos (a_1 + \tfrac{1}{2} \Delta a_1) \sec \tfrac{1}{2} \Delta a_1 \operatorname{tang} \tfrac{1}{2} (n)$$

zur Reduktion von dem Äquinoktium t_2 auf t_1:

$$a_2 = \alpha_2 - [(m) + (N) - 90°]$$

$$p_2 = -\left(\operatorname{tang} \delta_2 - \cos a_2 \operatorname{tang} \tfrac{1}{2}(n)\right) \sin (n)$$

$$\operatorname{tang} \Delta a_2 = \frac{p_2 \sin a_2}{1 - p_2 \cos a_2}$$

$$\alpha_1 = a_2 - [90° - (N)] + \Delta a_2$$

$$\operatorname{tang} \tfrac{1}{2} (\delta_1 - \delta_2) = -\cos \left(a_2 + \tfrac{1}{2} \Delta a_2\right) \sec \tfrac{1}{2} \Delta a_2 \operatorname{tang} \tfrac{1}{2} (n)$$

Reduktion von Koordinatendifferenzen scheinbarer Örter auf Differenzen mittlerer Örter für den Jahresanfang.

Sind $\Delta\alpha$ und $\Delta\delta$ die gemessenen Koordinatendifferenzen der scheinbaren Örter im Sinne Objekt minus Stern, $d\Delta\alpha$ und $d\Delta\delta$ die an ihnen anzubringenden Korrektionen, um Koordinatendifferenzen zu erhalten, die sich auf das mittlere Äquinoktium des Jahresanfangs beziehen, so wird

$$d\Delta\alpha = (d\Delta\alpha)_1 + (d\Delta\alpha)_2$$
$$d\Delta\delta = (d\Delta\delta)_1 + (d\Delta\delta)_2,$$

wobei

$$(d\Delta\alpha)_1 = -j\cos(G+\alpha)\,\frac{\operatorname{tg}\delta}{15}\,\Delta\alpha^{\mathrm{m}} - j\sin(G+\alpha)\,\frac{\sec^2\delta}{225}\,\Delta\delta'$$

$$(d\Delta\alpha)_2 = -k\cos(H+\alpha)\,\frac{\sec\delta}{15}\,\Delta\alpha^{\mathrm{m}} - k\sin(H+\alpha)\,\frac{\operatorname{tg}\delta\sec\delta}{225}\,\Delta\delta'$$

$$(d\Delta\delta)_1 = j\sin(G+\alpha)\,\Delta\alpha^{\mathrm{m}}$$

$$(d\Delta\delta)_2 = k\sin(H+\alpha)\sin\delta\,\Delta\alpha^{\mathrm{m}} - k\cos(H+\alpha)\,\frac{\cos\delta}{15}\,\Delta\delta' + [0.0003\,i\sin\delta\,\Delta\delta']$$

Hierin bezeichnen $(d\Delta\alpha)_1$ und $(d\Delta\delta)_1$ den Einfluß der Präzession und Nutation, $(d\Delta\alpha)_2$ und $(d\Delta\delta)_2$ den Einfluß der Aberration.

Die Größen G, H, j, k, i sind auf S. 238* — 255* zu finden. Die Faktoren $\frac{1}{15}\operatorname{tg}\delta$, $\frac{1}{225}\sec^2\delta$, $\frac{1}{15}\sec\delta$, $\frac{1}{225}\operatorname{tg}\delta\sec\delta$, $\sin\delta$, $\frac{1}{15}\cos\delta$ entnehme man der Zusammenstellung auf S. 268*. Die numerischen Werte der Funktionen sinus und cosinus sind auf S. 269* enthalten. $\Delta\alpha^{\mathrm{m}}$ bedeutet die in Zeitminuten ausgedrückte gemessene Rektaszensionsdifferenz, $\Delta\delta'$ ist die in Bogenminuten ausgedrückte gemessene Deklinationsdifferenz. Die Größen $d\Delta\alpha$ und $d\Delta\delta$ ergeben sich in Zeit- bzw. Bogensekunden. Das in eckige Klammern gesetzte Glied $0.0003\,i\sin\delta\,\Delta\delta'$ in der Formel für $(d\Delta\delta)_2$ beträgt für $\Delta\delta' = 10'$ im Maximum $0''.02$ und kann daher in den meisten Fällen unberücksichtigt bleiben.

Reduktionsgrößen 1939

δ	$\frac{1}{15}$ tg δ	$\frac{1}{225}$ sec² δ	$\frac{1}{15}$ sec δ	$\frac{1}{225}$ tg δ sec δ	sin δ	$\frac{1}{15}$ cos δ	tg δ	$\frac{1}{15}$ sec² δ	δ
0°	0.000	0.004	0.067	0.000	0.00	0.07	0.00	0.07	0°
5	0.006	0.004	0.067	0.000	0.09	0.07	0.09	0.07	5
10	0.012	0.005	0.068	0.001	0.17	0.07	0.18	0.07	10
15	0.018	0.005	0.069	0.001	0.26	0.06	0.27	0.07	15
20	0.024	0.005	0.071	0.002	0.34	0.06	0.36	0.08	20
25	0.031	0.005	0.074	0.002	0.42	0.06	0.47	0.08	25
30	0.038	0.006	0.077	0.003	0.50	0.06	0.58	0.09	30
35	0.047	0.007	0.081	0.004	0.57	0.05	0.70	0.10	35
40	0.056	0.008	0.087	0.005	0.64	0.05	0.84	0.11	40
40°	0.056	0.008	0.087	0.005	0.64	0.05	0.84	0.11	40°
42	0.060	0.008	0.090	0.005	0.67	0.05	0.90	0.12	42
44	0.064	0.009	0.093	0.006	0.69	0.05	0.97	0.13	44
46	0.069	0.009	0.096	0.007	0.72	0.05	1.04	0.14	46
48	0.074	0.010	0.100	0.007	0.74	0.04	1.11	0.15	48
50	0.079	0.011	0.104	0.008	0.77	0.04	1.19	0.16	50
52	0.085	0.012	0.108	0.009	0.79	0.04	1.28	0.18	52
54	0.092	0.013	0.113	0.010	0.81	0.04	1.38	0.19	54
56	0.099	0.014	0.119	0.012	0.83	0.04	1.48	0.21	56
58	0.107	0.016	0.126	0.013	0.85	0.04	1.60	0.24	58
60	0.115	0.018	0.133	0.015	0.87	0.03	1.73	0.27	60
60°	0.115	0.018	0.133	0.015	0.87	0.03	1.73	0.27	60°
61	0.120	0.019	0.138	0.017	0.87	0.03	1.80	0.28	61
62	0.125	0.020	0.142	0.018	0.88	0.03	1.88	0.30	62
63	0.131	0.022	0.147	0.019	0.89	0.03	1.96	0.32	63
64	0.137	0.023	0.152	0.021	0.90	0.03	2.05	0.35	64
65	0.143	0.025	0.158	0.023	0.91	0.03	2.14	0.37	65
66	0.150	0.027	0.164	0.025	0.91	0.03	2.25	0.40	66
67	0.157	0.029	0.171	0.027	0.92	0.03	2.36	0.44	67
68	0.165	0.032	0.178	0.029	0.93	0.02	2.48	0.48	68
69	0.174	0.035	0.186	0.032	0.93	0.02	2.61	0.52	69
70	0.183	0.038	0.195	0.036	0.94	0.02	2.75	0.57	70
71	0.194	0.042	0.205	0.040	0.95	0.02	2.90	0.63	71
72	0.205	0.047	0.216	0.044	0.95	0.02	3.08	0.70	72
73	0.218	0.052	0.228	0.050	0.96	0.02	3.27	0.78	73
74	0.232	0.058	0.242	0.056	0.96	0.02	3.49	0.88	74
75	0.249	0.066	0.258	0.064	0.97	0.02	3.73	1.00	75
75.0°	0.249	0.066	0.258	0.064	0.97	0.02	3.73	1.00	75.0°
75.5	0.258	0.071	0.266	0.069	0.97	0.02	3.87	1.06	75.5
76.0	0.267	0.076	0.276	0.074	0.97	0.02	4.01	1.14	76.0
76.5	0.278	0.082	0.286	0.079	0.97	0.02	4.17	1.22	76.5
77.0	0.289	0.088	0.296	0.086	0.97	0.01	4.33	1.32	77.0
77.5	0.301	0.095	0.308	0.093	0.98	0.01	4.51	1.42	77.5
78.0	0.314	0.103	0.321	0.101	0.98	0.01	4.70	1.54	78.0
78.5	0.328	0.112	0.334	0.110	0.98	0.01	4.92	1.68	78.5
79.0	0.343	0.122	0.349	0.120	0.98	0.01	5.14	1.83	79.0
79.5	0.360	0.134	0.366	0.132	0.98	0.01	5.40	2.01	79.5
80.0	0.378	0.147	0.384	0.145	0.98	0.01	5.67	2.21	80.0

Sinus

	0^h	1^h	2^h	3^h	4^h	5^h	
0^m	0.000	0.259	0.500	0.707	0.866	0.966	60
1	0.004	0.263	0.504	0.710	0.868	0.967	59
2	0.009	0.267	0.508	0.713	0.870	0.968	58
3	0.013	0.271	0.511	0.716	0.872	0.969	57
4	0.017	0.276	0.515	0.719	0.875	0.970	56
5	0.022	0.280	0.519	0.722	0.877	0.971	55
6	0.026	0.284	0.522	0.725	0.879	0.972	54
7	0.031	0.288	0.526	0.728	0.881	0.973	53
8	0.035	0.292	0.530	0.731	0.883	0.974	52
9	0.039	0.297	0.534	0.734	0.885	0.975	51
10	0.044	0.301	0.537	0.737	0.887	0.976	50
11	0.048	0.305	0.541	0.740	0.889	0.977	49
12	0.052	0.309	0.545	0.743	0.891	0.978	48
13	0.057	0.313	0.548	0.746	0.893	0.979	47
14	0.061	0.317	0.552	0.749	0.895	0.980	46
15	0.065	0.321	0.556	0.752	0.897	0.981	45
16	0.070	0.326	0.559	0.755	0.899	0.982	44
17	0.074	0.330	0.563	0.758	0.901	0.982	43
18	0.078	0.334	0.566	0.760	0.903	0.983	42
19	0.083	0.338	0.570	0.763	0.904	0.984	41
20	0.087	0.342	0.574	0.766	0.906	0.985	40
21	0.092	0.346	0.577	0.769	0.908	0.986	39
22	0.096	0.350	0.581	0.772	0.910	0.986	38
23	0.100	0.354	0.584	0.774	0.912	0.987	37
24	0.105	0.358	0.588	0.777	0.914	0.988	36
25	0.109	0.362	0.591	0.780	0.915	0.988	35
26	0.113	0.367	0.595	0.783	0.917	0.989	34
27	0.118	0.371	0.598	0.785	0.919	0.990	33
28	0.122	0.375	0.602	0.788	0.921	0.990	32
29	0.126	0.379	0.605	0.791	0.922	0.991	31
30	0.131	0.383	0.609	0.793	0.924	0.991	30
31	0.135	0.387	0.612	0.796	0.926	0.992	29
32	0.139	0.391	0.616	0.799	0.927	0.993	28
33	0.143	0.395	0.619	0.801	0.929	0.993	27
34	0.148	0.399	0.623	0.804	0.930	0.994	26
35	0.152	0.403	0.626	0.806	0.932	0.994	25
36	0.156	0.407	0.629	0.809	0.934	0.995	24
37	0.161	0.411	0.633	0.812	0.935	0.995	23
38	0.165	0.415	0.636	0.814	0.937	0.995	22
39	0.169	0.419	0.639	0.817	0.938	0.996	21
40	0.174	0.423	0.643	0.819	0.940	0.996	20
41	0.178	0.427	0.646	0.822	0.941	0.997	19
42	0.182	0.431	0.649	0.824	0.943	0.997	18
43	0.187	0.434	0.653	0.827	0.944	0.997	17
44	0.191	0.438	0.656	0.829	0.946	0.998	16
45	0.195	0.442	0.659	0.831	0.947	0.998	15
46	0.199	0.446	0.663	0.834	0.948	0.998	14
47	0.204	0.450	0.666	0.836	0.950	0.998	13
48	0.208	0.454	0.669	0.839	0.951	0.999	12
49	0.212	0.458	0.672	0.841	0.952	0.999	11
50	0.216	0.462	0.676	0.843	0.954	0.999	10
51	0.221	0.466	0.679	0.846	0.955	0.999	9
52	0.225	0.469	0.682	0.848	0.956	0.999	8
53	0.229	0.473	0.685	0.850	0.958	1.000	7
54	0.233	0.477	0.688	0.853	0.959	1.000	6
55	0.238	0.481	0.692	0.855	0.960	1.000	5
56	0.242	0.485	0.695	0.857	0.961	1.000	4
57	0.246	0.489	0.698	0.859	0.962	1.000	3
58	0.250	0.492	0.701	0.862	0.964	1.000	2
59	0.255	0.496	0.704	0.864	0.965	1.000	1
60	0.259	0.500	0.707	0.866	0.966	1.000	0^m
	5^h	4^h	3^h	2^h	1^h	0^h	

Cosinus

Reduktionsgrößen 1939

Übertragung von Rektaszensions- und Deklinationsdifferenzen vom mittleren Äquinoktium 1939.0 auf das Normaläquinoktium 1950.0

α	a_1	a_2	d_1	α	α	a_1	a_2	d_1	α
h m 0 0	+0.0641+	+0.0000−	−0.000+	h m 24 0	h m 6 0	−0.0000−	+0.0641−	−0.962+	h m 18 0
10	0641	0028	042	50	10	0028	0641	961	50
20	0639	0056	084	40	20	0056	0639	958	40
30	0636	0084	126	30	30	0084	0636	954	30
40	0632	0111	167	20	40	0111	0632	947	20
50	0626	0139	208	10	50	0139	0626	939	10
1 0	+0.0619+	+0.0166−	−0.249+	23 0	7 0	−0.0166−	+0.0619−	−0.929+	17 0
10	0612	0193	289	50	10	0193	0612	917	50
20	0603	0219	329	40	20	0219	0603	904	40
30	0593	0245	368	30	30	0245	0593	889	30
40	0581	0271	407	20	40	0271	0581	872	20
50	0569	0296	444	10	50	0296	0569	853	10
2 0	+0.0555+	+0.0321−	−0.481+	22 0	8 0	−0.0321−	+0.0555−	−0.833+	16 0
10	0541	0345	517	50	10	0345	0541	811	50
20	0525	0368	552	40	20	0368	0525	788	40
30	0509	0390	586	30	30	0390	0509	763	30
40	0491	0412	618	20	40	0412	0491	737	20
50	0473	0433	650	10	50	0433	0473	709	10
3 0	+0.0453+	+0.0453−	−0.680+	21 0	9 0	−0.0453−	+0.0453−	−0.680+	15 0
10	0433	0473	709	50	10	0473	0433	650	50
20	0412	0491	737	40	20	0491	0412	618	40
30	0390	0509	763	30	30	0509	0390	586	30
40	0368	0525	788	20	40	0525	0368	552	20
50	0345	0541	811	10	50	0541	0345	517	10
4 0	+0.0321+	+0.0555−	−0.833+	20 0	10 0	−0.0555−	+0.0321−	−0.481+	14 0
10	0296	0569	853	50	10	0569	0296	444	50
20	0271	0581	872	40	20	0581	0271	407	40
30	0245	0593	889	30	30	0593	0245	368	30
40	0219	0603	904	20	40	0603	0219	329	20
50	0193	0612	917	10	50	0612	0193	289	10
5 0	+0.0166+	+0.0619−	−0.929+	19 0	11 0	−0.0619−	+0.0166−	−0.249+	13 0
10	0139	0626	939	50	10	0626	0139	208	50
20	0111	0632	947	40	20	0632	0111	167	40
30	0084	0636	954	30	30	0636	0084	126	30
40	0056	0639	958	20	40	0639	0056	084	20
50	0028	0641	961	10	50	0641	0028	042	10
6 0	+0.0000+	+0.0641−	−0.962+	18 0	12 0	−0.0641−	+0.0000−	−0.000+	12 0

Für α zwischen 12^h und 24^h gelten die Vorzeichen zur Rechten.

$$\Delta\alpha_{1950.0} = \Delta\alpha_{1939.0} + a_1 \cdot \mathrm{tg}\,\delta \cdot \Delta\alpha^m + a_2 \cdot \frac{1}{15}\sec^2\delta \cdot \Delta\delta'; \quad \Delta\delta_{1950.0} = \Delta\delta_{1939.0} + d_1 \cdot \Delta\alpha^m$$

$\Delta\alpha^m$ bedeutet die Rektaszensionsdifferenz in Zeitminuten, $\Delta\delta'$ ist die Deklinationsdifferenz in Bogenminuten.

Die Werte von $\mathrm{tg}\,\delta$ und $\frac{1}{15}\sec^2\delta$ sind auf S. 268* enthalten.

Reduktionsgrößen 1939

Reduktion vom mittleren Äquinoktium 1950.0 auf das jedesmalige wahre Äquinoktium

0h Welt-Zeit	f	log g	G	0h Welt-Zeit	f	log g	G
1939	s		h m s	1939	s		h m s
Jan. −3	−33.067	2.33402	11 52 30	Juli 1	−31.642	2.31498	11 51 3
+2	33.014	2.33333	11 52 29	6	31.592	2.31431	11 51 2
7	32.962	2.33264	11 52 29	11	31.544	2.31364	11 51 3
12	32.912	2.33198	11 52 30	16	31.497	2.31299	11 51 4
17	32.863	2.33134	11 52 32	21	31.451	2.31235	11 51 6
22	−32.816	2.33071	11 52 35	26	−31.407	2.31174	11 51 9
27	32.771	2.33012	11 52 38	31	31.365	2.31115	11 51 13
Febr. 1	32.729	2.32956	11 52 42	Aug. 5	31.325	2.31059	11 51 16
6	32.689	2.32903	11 52 46	10	31.287	2.31006	11 51 20
11	32.652	2.32853	11 52 50	15	31.251	2.30956	11 51 24
16	−32.617	2.32806	11 52 54	20	−31.218	2.30909	11 51 28
21	32.584	2.32762	11 52 57	25	31.186	2.30864	11 51 31
26	32.554	2.32721	11 53 0	30	31.156	2.30822	11 51 34
März 3	32.525	2.32682	11 53 2	Sept. 4	31.128	2.30782	11 51 37
8	32.498	2.32646	11 53 3	9	31.101	2.30745	11 51 38
13	−32.472	2.32611	11 53 3	14	−31.076	2.30710	11 51 39
18	32.447	2.32577	11 53 3	19	31.051	2.30675	11 51 39
23	32.422	2.32544	11 53 1	24	31.026	2.30642	11 51 37
28	32.397	2.32511	11 52 58	29	31.002	2.30608	11 51 35
April 2	32.372	2.32477	11 52 54	Okt. 4	30.977	2.30574	11 51 32
7	−32.345	2.32442	11 52 49	9	−30.952	2.30539	11 51 27
12	32.318	2.32406	11 52 43	14	30.925	2.30502	11 51 21
17	32.289	2.32368	11 52 36	19	30.897	2.30463	11 51 14
22	32.258	2.32326	11 52 29	24	30.867	2.30421	11 51 7
27	32.225	2.32283	11 52 21	29	30.835	2.30377	11 50 59
Mai 2	−32.190	2.32236	11 52 13	Nov. 3	−30.801	2.30329	11 50 51
7	32.153	2.32187	11 52 4	8	30.764	2.30279	11 50 42
12	32.114	2.32135	11 51 56	13	30.725	2.30225	11 50 33
17	32.073	2.32081	11 51 49	18	30.683	2.30167	11 50 24
22	32.030	2.32023	11 51 40	23	30.639	2.30106	11 50 16
27	−31.985	2.31963	11 51 32	28	−30.593	2.30041	11 50 8
Juni 1	31.938	2.31900	11 51 25	Dez. 3	30.545	2.29973	11 50 1
6	31.890	2.31836	11 51 19	8	30.495	2.29903	11 49 54
11	31.841	2.31770	11 51 14	13	30.444	2.29832	11 49 49
16	31.792	2.31703	11 51 10	18	30.393	2.29759	11 49 45
21	−31.742	2.31635	11 51 6	23	−30.340	2.29684	11 49 42
26	31.692	2.31566	11 51 4	28	30.288	2.29610	11 49 40
Juli 1	−31.642	2.31498	11 51 3	33	−30.236	2.29535	11 49 40

Die mit den vorstehend gegebenen Größen f, $\log g$ und G berechnete Reduktion vom mittleren Äquinoktium 1950.0 auf das wahre Äquinoktium der Epoche bedarf noch einer Verbesserung, die von dem Einfluß der Variatio saecularis herrührt und auf Seite 272* und 273* enthalten ist. Es wird somit:

$$\text{Red. in } \alpha = f + \tfrac{1}{15}\, g \sin(G+\alpha)\, \operatorname{tg} \delta + \text{Korr. nach S. 272*}$$

$$\text{Red. in } \delta = g \cos(G+\alpha) + \text{Korr. nach S. 273*}$$

Korrektion der Reduktion vom mittleren Äquinoktium 1950.0 auf das jedesmalige wahre Äquinoktium (s. S. 271*), berechnet für 1939.0, mit Hinzufügung ihrer einjährigen Änderung.

Für Rektaszension (in 0ˢ.001)

α	δ +60°		+50°		+30°		+10°		−10°		−30°		−50°		−60°	
0ʰ	+32	−6	+23	−4	+12	−2	+4	−1	−2	0	−9	+2	−20	+4	−30	+5
1	+45	−8	+29	−5	+14	−3	+6	−1	0	0	−6	+1	−12	+2	−15	+3
2	+52	−9	+33	−6	+16	−3	+7	−1	+2	0	−2	0	−4	+1	−2	0
3	+50	−9	+31	−6	+15	−3	+8	−1	+3	−1	0	0	+1	0	+7	−1
4	+40	−7	+25	−4	+12	−2	+6	−1	+3	−1	+2	0	+4	−1	+10	−2
5	+22	−4	+14	−3	+7	−1	+4	−1	+2	0	+2	0	+4	−1	+7	−1
6	+1	0	+1	0	+1	0	+1	0	+1	0	+1	0	+2	0	+2	0
7	−21	+4	−12	+2	−5	+1	−2	0	0	0	+1	0	0	0	−4	+1
8	−39	+7	−23	+4	−10	+2	−4	+1	−1	0	+1	0	−1	0	−7	+1
9	−49	+9	−29	+5	−13	+2	−5	+1	−1	0	+2	0	+2	0	−4	+1
10	−50	+9	−31	+6	−14	+2	−5	+1	0	0	+5	−1	+7	−1	+5	−1
11	−43	+8	−27	+5	−12	+2	−4	+1	+2	0	+8	−1	+14	−3	+18	−3
12	−30	+5	−20	+4	−9	+2	−2	0	+4	−1	+12	−2	+23	−4	+32	−6
13	−15	+3	−12	+2	−6	+1	0	0	+6	−1	+14	−3	+29	−5	+45	−8
14	−2	0	−4	+1	−2	0	+2	0	+7	−1	+16	−3	+33	−6	+52	−9
15	+7	−1	+1	0	0	0	+3	−1	+8	−1	+15	−3	+31	−6	+50	−9
16	+10	−2	+4	−1	+2	0	+3	−1	+6	−1	+12	−2	+25	−4	+40	−7
17	+7	−1	+4	−1	+2	0	+2	0	+4	−1	+7	−1	+14	−3	+22	−4
18	+2	0	+2	0	+1	0	+1	0	+1	0	+1	0	+1	0	+1	0
19	−4	+1	0	0	+1	0	0	0	−2	0	−5	+1	−12	+2	−21	+4
20	−7	+1	−1	0	+1	0	−1	0	−4	+1	−10	+2	−23	+4	−39	+7
21	−4	+1	+2	0	+2	0	−1	0	−5	+1	−13	+2	−29	+5	−49	+9
22	+5	−1	+7	−1	+5	−1	0	0	−5	+1	−14	+2	−31	+6	−50	+9
23	+18	−3	+14	−3	+8	−1	+2	0	−4	+1	−12	+2	−27	+5	−43	+8
24	+32	−6	+23	−4	+12	−2	+4	−1	−2	0	−9	+2	−20	+4	−30	+5

Korrektion der Reduktion vom mittleren Äquinoktium 1950.0 auf das jedesmalige wahre Äquinoktium (s. S. 271*), berechnet für 1939.0, mit Hinzufügung ihrer einjährigen Änderung.

Für Deklination (in 0ˢ.01)

α	δ															
	+60°		+50°		+30°		+10°		−10°		−30°		−50°		−60°	
0ʰ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	−9	+2	−8	+2	−8	+1	−8	+1	−7	+1	−7	+1	−7	+1	−6	+1
2	−19	+3	−17	+3	−16	+3	−15	+3	−13	+2	−12	+2	−10	+2	−9	+2
3	−30	+5	−27	+5	−23	+4	−21	+4	−18	+3	−16	+3	−13	+2	−9	+2
4	−39	+7	−34	+6	−29	+5	−25	+5	−22	+4	−19	+3	−13	+2	−8	+2
5	−45	+8	−39	+7	−33	+6	−28	+5	−24	+4	−20	+4	−13	+2	−7	+1
6	−47	+9	−41	+7	−34	+6	−29	+5	−25	+5	−20	+4	−13	+2	−7	+1
7	−45	+8	−39	+7	−32	+6	−28	+5	−24	+4	−20	+4	−13	+2	−7	+1
8	−39	+7	−34	+6	−28	+5	−25	+4	−22	+4	−18	+3	−13	+2	−8	+1
9	−29	+5	−26	+5	−22	+4	−20	+4	−18	+3	−15	+3	−12	+2	−9	+2
10	−18	+3	−17	+3	−15	+3	−14	+2	−13	+2	−11	+2	−10	+2	−8	+1
11	−8	+1	−7	+1	−7	+1	−7	+1	−6	+1	−6	+1	−6	+1	−5	+1
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	+6	−1	+7	−1	+7	−1	+7	−1	+8	−1	+8	−1	+8	−2	+9	−2
14	+9	−2	+10	−2	+12	−2	+13	−2	+15	−3	+16	−3	+17	−3	+19	−3
15	+9	−2	+13	−2	+16	−3	+18	−3	+21	−4	+23	−4	+27	−5	+30	−5
16	+8	−2	+13	−2	+19	−3	+22	−4	+25	−5	+29	−5	+34	−6	+39	−7
17	+7	−1	+13	−2	+20	−4	+24	−4	+28	−5	+33	−6	+39	−7	+45	−8
18	+7	−1	+13	−2	+20	−4	+25	−5	+29	−5	+34	−6	+41	−7	+47	−9
19	+7	−1	+13	−2	+20	−4	+24	−4	+28	−5	+32	−6	+39	−7	+45	−8
20	+8	−1	+13	−2	+18	−3	+22	−4	+25	−4	+28	−5	+34	−6	+39	−7
21	+9	−2	+12	−2	+15	−3	+18	−3	+20	−4	+22	−4	+26	−5	+29	−5
22	+8	−1	+10	−2	+11	−2	+13	−2	+14	−2	+15	−3	+17	−3	+18	−3
23	+5	−1	+6	−1	+6	−1	+6	−1	+7	−1	+7	−1	+7	−1	+8	−1
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

α	0^h, 12^h		1^h, 13^h		2^h, 14^h		3^h, 15^h		4^h, 16^h		5^h, 17^h		α
m	+A−	+D−	+A−	+D−	+A−	+D−	+A−	+D−	+A−	+D−	+A−	+D−	m
	s	″	s	″	s	″	s	″	s	″	s	″	
0	0.018	220.47	3.821	212.89	7.365	190.80	10.406	155.71	12.738	110.00	14.202	56.80	0
1	082	220.47	883	212.64	420	190.32	451	155.03	770	109.17	218	55.87	1
2	146	220.46	3.945	212.38	475	189.83	496	154.34	802	108.33	234	54.94	2
3	210	220.45	4.007	212.12	530	189.34	541	153.65	833	107.49	250	54.01	3
4	274	220.44	069	211.86	585	188.84	586	152.96	864	106.65	266	53.08	4
5	339	220.42	131	211.59	640	188.34	630	152.26	895	105.81	281	52.15	5
6	403	220.39	193	211.32	695	187.84	674	151.56	926	104.97	296	51.21	6
7	467	220.36	254	211.04	750	187.34	718	150.86	956	104.12	311	50.27	7
8	531	220.33	315	210.76	804	186.83	762	150.16	12.986	103.27	325	49.33	8
9	595	220.29	376	210.48	858	186.32	806	149.45	13.016	102.42	339	48.40	9
10	0.659	220.25	4.437	210.19	7.912	185.80	10.849	148.74	13.046	101.57	14.353	47.46	10
11	723	220.21	498	209.90	7.966	185.28	892	148.03	075	100.71	367	46.52	11
12	787	220.16	559	209.60	8.020	184.76	935	147.32	104	99.85	381	45.58	12
13	851	220.11	620	209.30	074	184.23	10.978	146.60	133	98.99	394	44.64	13
14	915	220.05	681	208.99	128	183.70	11.021	145.88	162	98.13	407	43.69	14
15	0.979	219.99	742	208.68	181	183.17	063	145.16	190	97.27	420	42.75	15
16	1.043	219.92	802	208.37	234	182.63	105	144.44	218	96.41	432	41.80	16
17	107	219.85	863	208.05	287	182.09	147	143.71	246	95.54	444	40.86	17
18	171	219.77	923	207.73	340	181.55	189	142.98	274	94.67	456	39.91	18
19	235	219.69	4.984	207.41	393	181.00	230	142.25	302	93.80	467	38.97	19
20	1.299	219.61	5.044	207.08	8.445	180.45	11.271	141.51	13.329	92.93	14.478	38.02	20
21	363	219.53	104	206.75	498	179.90	312	140.77	356	92.06	489	37.07	21
22	427	219.44	164	206.41	550	179.34	353	140.03	383	91.19	500	36.12	22
23	491	219.34	224	206.07	602	178.78	394	139.29	409	90.31	510	35.17	23
24	554	219.24	284	205.73	654	178.21	434	138.54	435	89.43	520	34.22	24
25	618	219.14	344	205.38	706	177.64	474	137.79	461	88.55	530	33.27	25
26	682	219.03	404	205.03	758	177.07	514	137.04	487	87.67	540	32.32	26
27	746	218.92	464	204.68	809	176.50	554	136.28	512	86.79	549	31.37	27
28	809	218.80	523	204.32	860	175.92	593	135.52	537	85.90	558	30.42	28
29	873	218.68	583	203.96	911	175.34	632	134.76	562	85.01	567	29.47	29
30	1.936	218.55	5.642	203.59	8.962	174.75	11.671	134.00	13.587	84.12	14.575	28.51	30
31	2.000	218.42	701	203.22	9.013	174.16	710	133.24	611	83.23	583	27.56	31
32	063	218.29	760	202.84	063	173.57	749	132.47	635	82.34	591	26.60	32
33	127	218.15	819	202.46	114	172.98	788	131.70	659	81.45	599	25.65	33
34	190	218.01	878	202.08	164	172.38	826	130.93	682	80.56	606	24.69	34
35	254	217.87	937	201.69	214	171.78	864	130.15	705	79.66	613	23.74	35
36	317	217.72	5.995	201.30	264	171.17	902	129.37	728	78.76	620	22.78	36
37	381	217.57	6.054	200.91	314	170.56	939	128.59	751	77.86	626	21.83	37
38	444	217.41	112	200.51	364	169.95	11.976	127.81	774	76.96	632	20.87	38
39	507	217.25	170	200.11	413	169.34	12.013	127.03	796	76.06	638	19.91	39
40	2.570	217.08	6.228	199.70	9.462	168.72	12.050	126.24	13.818	75.15	14.644	18.95	40
41	633	216.91	286	199.29	511	168.10	087	125.45	840	74.25	649	17.99	41
42	696	216.73	344	198.88	560	167.48	123	124.66	861	73.34	654	17.03	42
43	759	216.55	402	198.46	608	166.85	159	123.86	882	72.43	659	16.07	43
44	822	216.37	459	198.04	656	166.22	195	123.06	903	71.52	664	15.11	44
45	885	216.18	517	197.62	704	165.59	231	122.26	924	70.61	668	14.15	45
46	2.948	215.99	574	197.19	752	164.95	267	121.46	944	69.70	672	13.19	46
47	3.011	215.80	632	196.76	800	164.31	302	120.66	964	68.79	676	12.23	47
48	074	215.60	689	196.32	848	163.66	337	119.85	13.984	67.87	679	11.27	48
49	137	215.40	746	195.88	896	163.01	372	119.04	14.004	66.96	682	10.31	49
50	3.199	215.19	6.803	195.44	9.943	162.36	12.406	118.23	14.023	66.04	14.685	9.35	50
51	262	214.98	860	194.99	9.990	161.71	440	117.42	042	65.12	688	8.39	51
52	324	214.76	916	194.54	10.037	161.06	474	116.60	061	64.20	690	7.43	52
53	387	214.54	6.973	194.09	084	160.40	508	115.78	080	63.28	692	6.46	53
54	449	214.32	7.029	193.63	131	159.74	542	114.96	098	62.36	694	5.50	54
55	511	214.09	086	193.17	177	159.08	575	114.14	116	61.44	695	4.54	55
56	573	213.86	142	192.70	223	158.41	608	113.32	134	60.51	696	3.58	56
57	635	213.62	198	192.23	269	157.74	641	112.49	151	59.59	697	2.61	57
58	697	213.38	254	191.76	315	157.07	674	111.66	168	58.66	697	1.65	58
59	759	213.14	310	191.28	361	156.39	706	110.83	185	57.73	698	0.69	59
60	3.821	212.89	7.365	190.80	10.406	155.71	12.738	110.00	14.202	56.80	14.698	—	60

α	6h, 18h		7h, 19h		8h, 20h		9h, 21h		10h, 22h		11h, 23h		α
m	+ A − (s)	− D + (″)	+ A − (s)	− D + (″)	+ A − (s)	− D + (″)	+ A − (s)	− D + (″)	+ A − (s)	− D + (″)	+ A − (s)	− D + (″)	m
0	14.698	0.27	14.193	57.32	12.720	110.47	10.380	156.09	7.334	191.07	3.787	213.03	0
1	698	1.24	176	58.25	688	111.30	335	156.77	278	191.55	725	213.27	1
2	697	2.20	159	59.18	656	112.13	289	157.44	222	192.02	663	213.51	2
3	697	3.16	142	60.11	623	112.96	243	158.11	166	192.49	601	213.75	3
4	696	4.12	124	61.03	590	113.78	197	158.78	110	192.96	538	213.99	4
5	695	5.08	106	61.96	557	114.60	151	159.45	7.054	193.42	476	214.22	5
6	693	6.04	088	62.88	523	115.42	105	160.11	6.998	193.88	414	214.44	6
7	691	7.00	070	63.80	489	116.24	058	160.77	941	194.34	352	214.66	7
8	689	7.96	051	64.72	455	117.06	10.011	161.43	884	194.79	289	214.88	8
9	686	8.93	032	65.64	421	117.87	9.964	162.08	828	195.24	227	215.09	9
10	14.683	9.89	14.013	66.56	12.387	118.68	9.917	162.73	6.771	195.69	3.164	215.30	10
11	680	10.85	13.993	67.48	352	119.49	870	163.38	714	196.13	101	215.51	11
12	677	11.81	973	68.39	317	120.30	822	164.02	657	196.57	3.038	215.71	12
13	673	12.77	953	69.30	282	121.11	774	164.66	600	197.00	2.976	215.91	13
14	669	13.73	933	70.21	247	121.91	726	165.30	543	197.43	913	216.10	14
15	665	14.69	913	71.12	211	122.71	678	165.94	485	197.86	850	216.29	15
16	661	15.65	892	72.03	175	123.51	629	166.57	427	198.28	787	216.47	16
17	656	16.61	871	72.94	139	124.31	581	167.20	369	198.70	724	216.65	17
18	651	17.57	850	73.85	103	125.10	532	167.83	311	199.11	661	216.83	18
19	646	18.53	828	74.76	067	125.89	483	168.45	253	199.52	598	217.00	19
20	14.641	19.48	13.806	75.66	12.030	126.68	9.434	169.07	6.195	199.93	2.535	217.17	20
21	635	20.44	784	76.56	11.993	127.47	385	169.68	137	200.33	472	217.33	21
22	629	21.40	762	77.46	956	128.25	336	170.29	079	200.73	409	217.49	22
23	623	22.36	739	78.36	919	129.03	286	170.90	6.021	201.13	346	217.65	23
24	616	23.31	716	79.26	881	129.81	236	171.51	5.962	201.52	282	217.80	24
25	609	24.27	693	80.16	843	130.59	186	172.11	903	201.91	219	217.95	25
26	602	25.23	669	81.06	805	131.36	136	172.71	844	202.29	156	218.09	26
27	594	26.19	645	81.95	767	132.13	086	173.31	785	202.67	092	218.23	27
28	586	27.14	621	82.84	728	132.90	9.035	173.90	726	203.05	2.028	218.36	28
29	578	28.10	597	83.73	689	133.67	8.984	174.49	667	203.42	1.965	218.49	29
30	14.570	29.05	13.573	84.62	11.650	134.43	8.933	175.08	5.608	203.79	1.901	218.62	30
31	562	30.00	548	85.51	611	135.19	882	175.66	549	204.16	837	218.74	31
32	553	30.95	523	86.39	571	135.95	831	176.24	489	204.52	773	218.86	32
33	544	31.91	498	87.28	531	136.71	780	176.81	430	204.88	710	218.97	33
34	534	32.86	472	88.16	491	137.46	729	177.38	371	205.23	646	219.08	34
35	524	33.81	446	89.04	451	138.21	677	177.95	311	205.58	582	219.19	35
36	514	34.76	420	89.92	411	138.96	625	178.52	251	205.93	518	219.29	36
37	504	35.71	394	90.80	371	139.70	573	179.08	191	206.27	455	219.39	37
38	494	36.66	368	91.68	330	140.44	521	179.64	131	206.61	391	219.48	38
39	483	37.61	341	92.55	289	141.18	469	180.20	071	206.94	327	219.57	39
40	14.472	38.55	13.314	93.42	11.248	141.92	8.416	180.75	5.010	207.27	1.263	219.66	40
41	461	39.50	287	94.29	207	142.66	363	181.30	4.950	207.59	199	219.74	41
42	449	40.45	259	95.16	165	143.39	310	181.85	890	207.91	135	219.82	42
43	437	41.39	231	96.03	123	144.12	257	182.39	829	208.23	071	219.89	43
44	425	42.33	203	96.89	081	144.85	204	182.93	768	208.55	1.007	219.96	44
45	413	43.28	175	97.75	11.039	145.57	151	183.46	708	208.86	0.943	220.02	45
46	400	44.22	146	98.61	10.997	146.29	098	183.99	647	209.16	879	220.08	46
47	387	45.16	117	99.47	954	147.01	8.044	184.52	586	209.46	815	220.14	47
48	373	46.10	088	100.33	911	147.73	7.990	185.05	525	209.76	751	220.19	48
49	359	47.04	059	101.19	868	148.44	936	185.57	464	210.05	687	220.24	49
50	14.345	47.98	13.029	102.04	10.825	149.15	7.882	186.09	4.403	210.34	0.623	220.28	50
51	331	48.92	12.999	102.89	781	149.86	828	186.60	342	210.63	559	220.32	51
52	317	49.86	969	103.74	737	150.56	774	187.11	280	210.92	495	220.35	52
53	302	50.80	939	104.59	693	151.26	720	187.62	219	211.20	431	220.38	53
54	287	51.74	909	105.44	649	151.96	665	188.12	158	211.47	367	220.40	54
55	272	52.67	878	106.28	605	152.66	610	188.62	096	211.74	303	220.42	55
56	257	53.60	847	107.12	560	153.35	555	189.12	4.034	212.01	239	220.44	56
57	242	54.53	816	107.96	515	154.04	500	189.61	3.973	212.27	175	220.46	57
58	226	55.46	784	108.80	470	154.73	445	190.10	911	212.53	111	220.47	58
59	210	56.39	752	109.64	425	155.41	390	190.59	849	212.78	0.047	220.47	59
60	14.193	57.32	12.720	110.47	10.380	156.09	7.334	191.07	3.787	213.03	—	220.47	60

Reduktionsgrößen 1939

Übertragung von Sternörtern vom mittleren Äquinoktium 1939.0 auf das Normaläquinoktium 1950.0

α	B	α	α	B	α
h m	s	h m	h m	s	h m
0 0	+33.805	12 0	6 0	+33.805	18 0
10	33.804	10	10	33.805	10
20	33.804	20	20	33.806	20
30	33.804	30	30	33.806	30
40	33.803	40	40	33.806	40
50	33.803	50	50	33.806	50
1 0	+33.803	13 0	7 0	+33.807	19 0
10	33.803	10	10	33.807	10
20	33.802	20	20	33.807	20
30	33.802	30	30	33.808	30
40	33.802	40	40	33.808	40
50	33.802	50	50	33.808	50
2 0	+33.801	14 0	8 0	+33.808	20 0
10	33.801	10	10	33.808	10
20	33.801	20	20	33.809	20
30	33.801	30	30	33.809	30
40	33.801	40	40	33.809	40
50	33.801	50	50	33.809	50
3 0	+33.801	15 0	9 0	+33.809	21 0
10	33.801	10	10	33.809	10
20	33.801	20	20	33.809	20
30	33.801	30	30	33.809	30
40	33.801	40	40	33.809	40
50	33.801	50	50	33.808	50
4 0	+33.801	16 0	10 0	+33.808	22 0
10	33.802	10	10	33.808	10
20	33.802	20	20	33.808	20
30	33.802	30	30	33.808	30
40	33.802	40	40	33.807	40
50	33.803	50	50	33.807	50
5 0	+33.803	17 0	11 0	+33.807	23 0
10	33.803	10	10	33.806	10
20	33.804	20	20	33.806	20
30	33.804	30	30	33.806	30
40	33.804	40	40	33.806	40
50	33.804	50	50	33.805	50
6 0	+33.805	18 0	12 0	+33.805	24 0

C	ΔC	P	C	ΔC	P
s	s		s	s	
0	e 0.000	e 0.0000	350	e 0.076	e 0.1909
10	000	0055	360	082	1963
20	000	0109	370	089	2018
30	000	0164	380	097	2072
40	000	0218	390	104	2127
50	e 0.000	e 0.0273	400	e 0.113	e 0.2181
60	000	0327	410	121	2236
70	001	0382	420	131	2290
80	001	0436	430	140	2345
90	001	0491	440	150	2399
100	e 0.002	e 0.0545	450	e 0.161	e 0.2454
110	002	0600	460	172	2508
120	003	0654	470	183	2563
130	004	0709	480	195	2617
140	005	0764	490	207	2672
150	e 0.006	e 0.0818	500	e 0.220	e 0.2726
160	007	0873	510	234	2781
170	009	0927	520	248	2835
180	010	0982	530	262	2890
190	012	1036	540	277	2944
200	e 0.014	e 0.1091	550	e 0.293	e 0.2999
210	016	1145	560	309	3053
220	019	1200	570	326	3107
230	022	1254	580	344	3162
240	025	1309	590	362	3216
250	e 0.028	e 0.1363	600	e 0.380	e 0.3271
260	031	1418	610	400	3325
270	035	1473	620	420	3380
280	039	1527	630	440	3434
290	043	1582	640	462	3489
300	e 0.048	e 0.1636	650	e 0.484	e 0.3543
310	053	1691	660	506	3598
320	058	1745	670	529	3652
330	063	1800	680	553	3707
340	069	1854	690	578	3761
350	e 0.076	e 0.1909	700	e 0.604	e 0.3815

e bedeutet: Vorzeichen entgegengesetzt dem Vorzeichen des Arguments.

$$\alpha_{1950} = \alpha_{1939} + B + C + \Delta C, \text{ wobei } C = A.\ \mathrm{tg}\,(\delta_{1939} + D)$$

$$\delta_{1950} = \delta_{1939} + D + R, \text{ wobei } R = A.\ P$$

A und D sind aus der Tafel S. 274* u. 275* mit dem Argument α_{1939} zu entnehmen. Für die Werte von α zwischen 0^h und 12^h gelten die Vorzeichen zur Linken, für die Werte von α zwischen 12^h und 24^h die Vorzeichen zur Rechten. B, ΔC und P sind in der obenstehenden Tafel enthalten. Die Vorzeichen von ΔC und P sind dem Vorzeichen von C entgegengesetzt.

Finsternisse, Sternbedeckungen, Mösting A, Trabanten

Konstellationen, Hilfstafeln

1939

Sonnen- und Mondfinsternisse 1939

Im Jahre 1939 finden zwei Sonnenfinsternisse und zwei Mondfinsternisse statt.

I. Ringförmige Sonnenfinsternis 1939 April 19
in Berlin sichtbar als partielle Finsternis.

Konjunktion in Rektaszension . . . . . .April 19, $17^h\ 14^m\ 2^s.6$ Welt-Zeit

Rektaszension des Mondes	$1^h\ 46^m\ 52^s.53$
Stündliche Änderung	2 8.14
Rektaszension der Sonne	1 46 52.53
Stündliche Änderung	9.30
Deklination des Mondes	$+11°\ 56'\ 54''.0$
Stündliche Änderung	+ 8 45.6
Deklination der Sonne	+11 2 0.6
Stündliche Änderung	+ 52.1
Äquatorialhorizontalparallaxe des Mondes .	$56'\ 35''.5$
„ der Sonne . .	8.8
Halbmesser des Mondes	$15'\ 24''.5$
„ der Sonne	15 55.2

	Welt-Zeit	Westl. Länge v. Greenwich	Geogr. Breite
	h m	° '	° '
Anfang der Finsternis.	April 19, 14 26.0	131 5	+21 39
Beginn der zentralen Verfinsterung.	„ 16 7.3	167 22	+53 41
Zentrale Verfinsterung im wahren Mittag	„ 17 14.0	78 42	+88 23
Ende der zentralen Verfinsterung .	„ 17 23.2	283 18	+78 6
Ende der Finsternis	„ 19 4.6	2 19	+51 8

Verlauf der Zentrallinie

Welt-Zeit	Westl. Länge v. Greenwich	Geogr. Breite	Dauer d. ringförm. Verfinst.	Welt-Zeit	Westl. Länge v. Greenwich	Geogr. Breite	Dauer d. ringförm. Verfinst.
h m	° '	° '	m s	h m	° '	° '	m s
16 7.3	167 22	+53 41	—	16 45	129 16.7	+72 55.9	1 49.3
16 10	156 30.8	+56 39.8	1 52.6	16 50	126 19.8	+75 12.1	1 49.2
16 15	149 34.0	+59 32.5	1 51.6	16 55	123 7.5	+77 34.2	1 49.2
16 20	144 56.3	+61 57.6	1 50.9	17 0	119 22.9	+80 4.6	1 49.2
16 25	141 12.8	+64 12.8	1 50.4	17 5	114 25.5	+82 46.8	1 49.4
16 30	137 58.0	+66 23.8	1 50.0	17 10	105 38.2	+85 46.1	1 49.6
16 35	134 58.9	+68 33.4	1 49.7	17 15	54 6.5	+88 53.0	1 50.0
16 40	132 7.3	+70 43.5	1 49.4	17 20	302 3.3	+85 37.3	1 50.7
16 45	129 16.7	+72 55.9	1 49.3	17 23.2	283 18	+78 6	—

Die Finsternis ist sichtbar im nordöstlichen Teil des Stillen Ozeans, im nordöstlichsten Teil Asiens, in Nordamerika, im nördlichen Eismeer, im nördlichen Teil des Atlantischen Ozeans und im Westen und Norden Europas, sowie in Mitteleuropa.

Elemente der ringförmigen Sonnenfinsternis 1939 April 19

Welt-Zeit	x	y	log sin d	log cos d	μ	$l^{(a)}$	$l^{(i)}$
h m					° ′ ″		
14 20	−1.493305	+0.567212	9.280215	9.991962	35 10 31.8	+0.555298	+0.009335
30	1.407539	0.590536	9.280307	9.991958	37 40 33.9	0.555286	0.009323
40	1.321768	0.613855	9.280399	9.991955	40 10 36.1	0.555274	0.009311
50	1.235992	0.637170	9.280491	9.991951	42 40 38.2	0.555261	0.009298
15 0	−1.150210	+0.660479	9.280583	9.991947	45 10 40.3	+0.555248	+0.009285
10	1.064423	0.683783	9.280675	9.991944	47 40 42.5	0.555234	0.009271
20	0.978632	0.707082	9.280767	9.991940	50 10 44.6	0.555220	0.009257
30	0.892837	0.730376	9.280859	9.991937	52 40 46.8	0.555205	0.009242
40	0.807038	0.753665	9.280951	9.991934	55 10 48.9	0.555189	0.009226
50	0.721235	0.776949	9.281043	9.991930	57 40 51.1	0.555173	0.009210
16 0	−0.635429	+0.800227	9.281134	9.991926	60 10 53.2	+0.555156	+0.009193
10	0.549619	0.823500	9.281226	9.991923	62 40 55.3	0.555138	0.009176
20	0.463807	0.846768	9.281318	9.991920	65 10 57.5	0.555120	0.009158
30	0.377992	0.870030	9.281409	9.991916	67 40 59.7	0.555101	0.009139
40	0.292174	0.893287	9.281501	9.991913	70 11 1.8	0.555082	0.009120
50	0.206354	0.916538	9.281592	9.991910	72 41 4.0	0.555062	0.009100
17 0	−0.120532	+0.939783	9.281683	9.991906	75 11 6.1	+0.555042	+0.009079
10	−0.034707	0.963022	9.281775	9.991903	77 41 8.3	0.555021	0.009058
20	+0.051119	0.986256	9.281867	9.991900	80 11 10.5	0.554999	0.009036
30	0.136947	1.009483	9.281958	9.991896	82 41 12.6	0.554976	0.009014
40	0.222777	1.032705	9.282049	9.991893	85 11 14.7	0.554953	0.008991
50	0.308608	1.055921	9.282141	9.991889	87 41 16.9	0.554930	0.008968
18 0	+0.394440	+1.079131	9.282232	9.991885	90 11 19.0	+0.554906	+0.008944
10	0.480273	1.102335	9.282323	9.991882	92 41 21.2	0.554881	0.008919
20	0.566107	1.125533	9.282415	9.991879	95 11 23.3	0.554856	0.008894
30	0.651942	1.148725	9.282506	9.991875	97 41 25.4	0.554830	0.008869
40	0.737778	1.171912	9.282598	9.991872	100 11 27.6	0.554804	0.008843
50	0.823614	1.195092	9.282689	9.991868	102 41 29.7	0.554777	0.008816
19 0	+0.909449	+1.218266	9.282780	9.991864	105 11 31.9	+0.554749	+0.008788
10	+0.995285	+1.241434	9.282871	9.991861	107 41 34.0	+0.554721	+0.008760

Welt-Zeit	x'	y'	log tang $f^{(a)}$	log tang $f^{(i)}$
h m				
14 0	+0.0085752	+0.0023336	7.66791	7.66574
15 0	0.0085784	0.0023307	7.66791	7.66574
16 0	0.0085808	0.0023276	7.66790	7.66573
17 0	0.0085824	0.0023242	7.66790	7.66573
18 0	0.0085833	0.0023207	7.66789	7.66572
19 0	0.0085836	0.0023171	7.66789	7.66572
20 0	+0.0085834	+0.0023134	7.66788	7.66571

Sonnenfinsternis 1939 April 19

Anfang der Finsternis

Östliche Länge von Greenwich — Welt-Zeit

Geographische Breite	20ᵐ	30ᵐ	40ᵐ	50ᵐ	60ᵐ	70ᵐ	80ᵐ	90ᵐ	100ᵐ
	17^h	17^h	17^h	17^h	17^h	17^h	17^h	17^h	17^h
44°	49.9ᵐ	48.8ᵐ	47.7ᵐ	46.4ᵐ	45.1ᵐ	.	.	.	.
45	46.9	46.0	44.9	43.8	42.6	.ᵐ	.	.	.
46	44.0	43.2	42.2	41.2	40.1	38.9	.	.	.
47	41.1	40.4	39.6	38.7	37.6	36.5	.ᵐ	.	.
48	38.3	37.7	37.0	36.2	35.2	34.2	33.1	.	.
49	35.6	35.0	34.4	33.7	32.9	31.9	30.9	.	.
50	32.9	32.4	31.9	31.3	30.5	29.7	28.7	27.6ᵐ	.
51	30.2	29.9	29.4	28.9	28.2	27.4	26.5	25.5	.ᵐ
52	27.6	27.4	27.0	26.5	25.9	25.2	24.4	23.5	22.4
53	25.1	24.9	24.6	24.2	23.7	23.1	22.3	21.5	20.5
54	22.7	22.5	22.3	22.0	21.5	21.0	20.3	19.5	18.5
55	20.3	20.2	20.0	19.8	19.4	18.9	18.2	17.5	16.6
56	17.9	17.9	17.8	17.6	17.2	16.8	16.2	15.5	14.7
57	15.6	15.7	15.6	15.4	15.1	14.7	14.2	13.6	12.9
58	13.4	13.5	13.5	13.3	13.1	12.7	12.3	11.7	11.0
59	11.2	11.4	11.4	11.3	11.1	10.8	10.4	9.8	9.2
60	9.1	9.3	9.3	9.3	9.1	8.8	8.5	8.0	7.4

Größte Phase

Östl. Länge von Greenwich — Welt-Zeit

Geographische Breite	20ᵐ	30ᵐ	40ᵐ	50ᵐ	60ᵐ	70ᵐ	80ᵐ
	18^h	18^h	18^h	18^h	18^h	18^h	18^h
44°	26.7ᵐ	.	.	.	.	.	.
45	25.6	.	.	.	.	.	.
46	24.5	.ᵐ	.	.	.	.	.
47	23.3	22.9	.	.	.	.	.
48	22.2	21.7	.	.	.	.	.
49	21.0	20.5	.	.	.	.	.
50	19.8	19.3	.ᵐ	.	.	.	.
51	18.5	18.1	17.6	.	.	.	.
52	17.2	16.9	16.4	.ᵐ	.	.	.
53	15.9	15.6	15.1	14.6	.	.	.
54	14.6	14.3	13.9	13.3	.	.	.
55	13.3	13.0	12.6	12.0	.ᵐ	.	,
56	11.9	11.6	11.2	10.7	10.2	.	.
57	10.5	10.2	9.9	9.4	8.9	.ᵐ	.
58	9.1	8.8	8.5	8.1	7.5	6.9	.
59	7.6	7.4	7.1	6.7	6.2	5.6	.ᵐ
60	6.1	5.9	5.7	5.3	4.8	4.2	3.6

Winkel P

Geographische Breite	20ᵐ	30ᵐ	40ᵐ	50ᵐ	60ᵐ	70ᵐ	80ᵐ	90ᵐ	100ᵐ
44°	312.0°	310.9°	309.8°	308.7°	307.6°	.°	.	.	.
46	307.5	306.6	305.6	304.6	303.7	302.7	.°	.	.
48	303.3	302.5	301.6	300.8	299.9	299.0	298.1	.°	.
50	299.4	298.6	297.9	297.1	296.4	295.5	294.7	293.9	.
52	295.7	295.0	294.4	293.7	293.0	292.3	291.5	290.8	290.0°
54	292.2	291.6	291.1	290.4	289.8	289.2	288.5	287.8	287.1
56	289.0	288.5	288.0	287.4	286.8	286.3	285.7	285.0	284.4
58	286.0	285.6	285.1	284.6	284.1	283.5	283.0	282.4	281.8
60	283.3	282.9	282.4	282.0	281.5	281.0	280.5	279.9	279.4

Betrag der größten Phase

Geographische Breite	20ᵐ	30ᵐ	40ᵐ	50ᵐ	60ᵐ	70ᵐ	80ᵐ
44°	0.20	.	.	.	.	.	.
46	0.25	.26	.	.	.	.	.
48	0.30	.31	.	.	.	.	.
50	0.34	.35	.36	.	.	.	.
52	0.39	.40	.41	.42	.	.	.
54	0.43	.44	.45	.46	.	.	.
56	0.47	.48	.49	.50	.51	.	.
58	0.52	.52	.53	.54	.55	.56	.
60	0.56	.56	.57	.58	.59	.60	.61

Winkel Q

Geographische Breite	20ᵐ	30ᵐ	40ᵐ	50ᵐ	60ᵐ	70ᵐ	80ᵐ	90ᵐ	100ᵐ
44°	265.6°	264.8°	264.0°	263.3°	262.6°	.°	.	.	.
46	262.9	262.3	261.6	260.9	260.3	259.8	.°	.	.
48	260.6	260.0	259.4	258.8	258.3	257.8	257.3	.°	.
50	258.6	258.0	257.5	257.0	256.5	256.1	255.7	255.3	.
52	256.8	256.3	255.8	255.4	255.0	254.6	254.2	253.8	253.5°
54	255.3	254.8	254.4	254.0	253.6	253.3	252.9	252.6	252.3
56	254.1	253.6	253.2	252.9	252.5	252.2	251.9	251.6	251.3
58	253.1	252.7	252.3	252.0	251.6	251.3	251.0	250.8	250.5
60	252.5	252.1	251.7	251.3	251.0	250.7	250.4	250.1	249.9

Ende der Finsternis

20ᵐ östliche Länge von Greenwich

Geographische Breite	Welt-Zeit	P	Q
59°	19^h 0.8ᵐ	51.2°	22.1°
60	19 0.0	52.4	24.2

II. Totale Mondfinsternis 1939 Mai 3
unsichtbar in Berlin.

Opposition in Rektaszension	Mai 3, $15^h\ 2^m\ 32.9^s$	Welt-Zeit

Rektaszension des Mondes	$14^h\ 39^m\ 21.55^s$
Stündliche Änderung	2 17.18
Rektaszension der Sonne	2 39 21.55
Stündliche Änderung	9.58
Deklination des Mondes	$-15°\ 9'\ 47.9''$
Stündliche Änderung	− 7 21.0
Deklination der Sonne	+15 31 37.1
Stündliche Änderung	+ 44.4
Äquatorialhorizontalparallaxe des Mondes	$57'\ 46.9''$
„ der Sonne	8.7
Halbmesser des Mondes	$15'\ 43.9''$
„ der Sonne	15 51.8

Eintritt des Mondes in den Halbschatten .	Mai 3,	$12^h\ 23.4^m$	Welt-Zeit
Eintritt des Mondes in den Kernschatten	„	13 27.6	„
Anfang der totalen Verfinsterung	„	14 39.5	„
Mitte der Finsternis	„	15 11.2	„
Ende der totalen Verfinsterung	„	15 42.9	„
Austritt des Mondes aus dem Kernschatten	„	16 55.0	„
Austritt des Mondes aus dem Halbschatten	„	17 59.6	„

Der Mond steht zu den Zeiten der ersten und letzten Berührung mit dem Kernschatten im Zenit der Orte, deren geographische Lage ist:

203° 31′ westliche Länge von Greenwich, 14° 58′ südliche Breite
253 32 „ „ „ „ 15 23 „ „

Positionswinkel des Eintritts . . . . =124°
„ „ Austritts . . . . =260

Größe der Finsternis in Einheiten des Monddurchmessers . . =1.182

Der Anfang der Finsternis ist sichtbar in Alaska, im Stillen Ozean, in Australien, in Polynesien, im südlichen Eismeer, im Indischen Ozean und in Ost- und Inner-Asien. Das Ende ist sichtbar im westlichen Teil des Stillen Ozeans, in Polynesien, in Australien, in Asien, im südlichen Eismeer, im Indischen Ozean, in Madagascar, in Afrika mit Ausnahme des nordwestlichen Teiles und im östlichen Europa.

III. Totale Sonnenfinsternis 1939 Oktober 12 unsichtbar in Berlin.

Konjunktion in Rektaszension . . . Oktober 12, 21ʰ 10ᵐ 49.4ˢ Welt-Zeit

Rektaszension des Mondes	13ʰ 8ᵐ 46.20ˢ
Stündliche Änderung	2 21.94
Rektaszension der Sonne	13 8 46.20
Stündliche Änderung	9.24
Deklination des Mondes	— 8° 19′ 21.6″
Stündliche Änderung	— 10 50.0
Deklination der Sonne	— 7 18 17.1
Stündliche Änderung	— 56.5
Äquatorialhorizontalparallaxe des Mondes	1° 0′ 11.6″
„ der Sonne	8.8
Halbmesser des Mondes	16′ 23.3″
„ der Sonne	16 1.7

	Welt-Zeit	Westl. Länge v. Greenwich	Geogr. Breite
	h m	° ′	° ′
Anfang der Finsternis . . . . Oktober 12,	18 34.7	195 1	—22 22
Beginn der zentralen Verfinsterung „	20 17.2	230 26	—60 0
Ende der zentralen Verfinsterung „	21 2.3	287 27	—81 28
Ende der Finsternis . . . . . „	22 45.0	63 48	—55 34

Verlauf der Zentrallinie

Welt-Zeit	Westl. Länge v. Greenwich	Geogr. Breite	Dauer d. Totalität	Welt-Zeit	Westl. Länge v. Greenwich	Geogr. Breite	Dauer d. Totalität
h m	° ′	° ′	m s	h m	° ′	° ′	m s
20 17.2	230 26	—60 0	—	20 40	204 53.2	—72 49.8	1 32.5
20 20	219 26.7	—62 29.1	1 22.1	20 45	204 29.6	—75 32.1	1 31.8
20 25	213 6.9	—65 13.4	1 27.6	20 50	206 26.0	—78 25.9	1 29.9
20 30	209 13.6	—67 44.9	1 30.6	20 55	214 29.7	—81 31.9	1 26.6
20 35	206 32.9	—70 15.3	1 32.1	21 0	246 46.9	—84 3.2	1 20.4
20 40	204 53.2	—72 49.8	1 32.5	21 2.3	287 27	—81 28	—

Die Finsternis ist sichtbar im Südosten Australiens, in Polynesien, im südlichen Eismeer und auf der Südspitze Südamerikas.

Elemente der totalen Sonnenfinsternis 1939 Oktober 12

Welt-Zeit	x	y	log sin d	log cos d	μ	$l^{(a)}$	$l^{(i)}$
18h 30m	−1.465288	−0.574005	9.101729n	9.996503	100° 50′ 13.5″	+0.539563	−0.006322
40	1.374198	0.601598	9.101880n	9.996501	103 20 15.8	0.539587	0.006299
50	1.283104	0.629187	9.102031n	9.996499	105 50 18.2	0.539610	0.006276
19 0	−1.192006	−0.656771	9.102183n	9.996496	108 20 20.6	+0.539632	−0.006254
10	1.100904	0.684350	9.102334n	9.996494	110 50 22.9	0.539654	0.006232
20	1.009800	0.711925	9.102485n	9.996491	113 20 25.3	0.539675	0.006211
30	0.918692	0.739494	9.102637n	9.996488	115 50 27.7	0.539695	0.006191
40	0.827581	0.767058	9.102788n	9.996486	118 20 30.0	0.539714	0.006172
50	0.736468	0.794617	9.102939n	9.996484	120 50 32.4	0.539733	0.006153
20 0	−0.645353	−0.822170	9.103090n	9.996481	123 20 34.8	+0.539752	−0.006135
10	0.554236	0.849718	9.103241n	9.996479	125 50 37.1	0.539770	0.006117
20	0.463116	0.877260	9.103392n	9.996476	128 20 39.5	0.539786	0.006101
30	0.371996	0.904797	9.103543n	9.996473	130 50 41.9	0.539802	0.006085
40	0.280874	0.932328	9.103694n	9.996471	133 20 44.2	0.539817	0.006069
50	0.189751	0.959854	9.103844n	9.996469	135 50 46.6	0.539832	0.006054
21 0	−0.098627	−0.987374	9.103995n	9.996466	138 20 49.0	+0.539846	−0.006040
10	−0.007503	1.014888	9.104146n	9.996464	140 50 51.3	0.539859	0.006027
20	+0.083622	1.042397	9.104296n	9.996461	143 20 53.7	0.539872	0.006014
30	0.174746	1.069899	9.104447n	9.996458	145 50 56.1	0.539884	0.006002
40	0.265870	1.097395	9.104597n	9.996456	148 20 58.4	0.539895	0.005991
50	0.356994	1.124885	9.104748n	9.996454	150 51 0.8	0.539906	0.005980
22 0	+0.448116	−1.152369	9.104898n	9.996451	153 21 3.2	+0.539916	−0.005971
10	0.539238	1.179847	9.105048n	9.996449	155 51 5.5	0.539925	0.005962
20	0.630358	1.207318	9.105199n	9.996446	158 21 7.9	0.539934	0.005953
30	0.721476	1.234782	9.105349n	9.996443	160 51 10.3	0.539942	0.005945
40	0.812593	1.262241	9.105499n	9.996441	163 21 12.6	0.539949	0.005938
50	+0.903708	−1.289693	9.105649n	9.996439	165 51 15.0	+0.539955	−0.005932

Welt-Zeit	x'	y'	log tang $f^{(a)}$	log tang $f^{(i)}$
18h 0m	+0.0091073	−0.0027609	7.67076	7.66859
19 0	0.0091100	0.0027582	7.67076	7.66859
20 0	0.0091116	0.0027551	7.67077	7.66860
21 0	0.0091124	0.0027517	7.67077	7.66861
22 0	0.0091122	0.0027481	7.67078	7.66861
23 0	+0.0091110	−0.0027443	7.67079	7.66862

IV. Partielle Mondfinsternis 1939 Oktober 28
sichtbar in Berlin.

		h	m	s	
Opposition in Rektaszension	Okt. 28,	6	23	2.2	Welt-Zeit

	h	m	s
Rektaszension des Mondes	2	6	44.01
Stündliche Änderung		2	5.18
Rektaszension der Sonne	14	6	44.01
Stündliche Änderung			9.63
	°	′	″
Deklination des Mondes	+12	23	33.9
Stündliche Änderung	+	7	55.0
Deklination der Sonne	−12	49	53.8
Stündliche Änderung	−		50.7
		′	″
Äquatorialhorizontalparallaxe des Mondes .		55	44.0
,, der Sonne . .			8.9
		′	″
Halbmesser des Mondes		15	10.4
,, der Sonne		16	5.9

		h	m	
Eintritt des Mondes in den Halbschatten . . .	Okt. 28	3	41.8	Welt-Zeit
Eintritt des Mondes in den Kernschatten	,,	4	54.5	,,
Mitte der Finsternis	,,	6	36.2	,,
Austritt des Mondes aus dem Kernschatten . .	,,	8	18.2	,,
Austritt des Mondes aus dem Halbschatten . .	,,	9	30.9	,,

Der Mond steht zu den Zeiten der ersten und letzten Berührung mit dem Kernschatten im Zenit der Orte, deren geographische Lage ist:

78° 20′ westliche Länge von Greenwich, 12° 12′ nördliche Breite
127 38 ,, ,, ,, ,, 12 39 ,, ,,

Positionswinkel des Eintritts . . . . = 48°
,, ,, Austritts . . . . = 283
Größe der Finsternis in Einheiten des Monddurchmessers . . = 0.992

Der Anfang der Finsternis ist sichtbar in Europa mit Ausnahme des äußersten Ostens, im Westen Afrikas, im Atlantischen Ozean, in Nord- und Südamerika, im östlichen Teil des Stillen Ozeans und im äußersten Nordosten Asiens. Das Ende ist sichtbar im nördlichen Teil des Atlantischen Ozeans, im nördlichen Eismeer, in Nord- und Südamerika, im Stillen Ozean, in Polynesien, im Osten Australiens und im Nordosten Asiens.

Sternbedeckungen 1939

Ein- und Austritte für Berlin-Babelsberg

Tag	Stern	Größe	Phase	Welt-Zeit	*P*	*a*	*b*	Alter des Mondes	Pos.
1939		m		h m	°	m	m	d	
Jan. 1	BD +14° 469	6.8	E.	16 7.6	126	−1.5	+0.1	11.0	+5.7
1	Uranus	6.0	E.	17 12.1	61	−1.0	+1.7	11.0	+3.8
1	BD +15° 414	6.9	E.	21 23.6	95	−1.3	−1.2	11.1	+4.9
3	BD +19° 811	6.2	E.	19 40.6	126	−1.5	−0.7	13.1	+5.7
7	ϰ Cancri	5.1	A.	20 55.1	294	−0.6	+0.7	17.1	+2.3
8	14 Sextantis	6.3	A.	21 31.1	243	−0.5	+2.6	18.2	+1.9
25	BD +2° 4752	6.9	E.	19 18.1	90	−0.6	−1.7	5.2	+2.3
26	62 Piscium	6.1	E.	16 32.7	78	−1.5	−0.1	6.1	+5.7
26	δ Piscium	4.6	E.	17 13.2	25	−0.9	+1.6	6.1	+3.4
28	29 Arietis	6.1	E.	19 11.9	27	−1.1	+1.8	8.2	+4.2
29	BD +17° 575	6.4	E.	22 19.2	37	−0.9	+0.4	9.3	+3.4
30	BD +18° 633	6.0	E.	17 58.3	91	−1.4	+0.4	10.2	+5.3
30	ε Tauri	3.6	E.	19 58.6	82	−1.4	−0.2	10.3	+5.3
Febr. 2	BD +18° 1349	6.2	E.	2 52.5	37	−0.7	0.0	12.5	+2.7
7	BD −1° 2546	6.2	A.	0 2.4	287	−1.2	+0.3	17.4	+4.6
8	χ Virginis	4.8	A.	3 44.7	288	−1.3	−0.9	18.6	+4.9
23	BD +9° 167	7.2	E.	17 52.1	0	—	—	4.4	—
25	BD +15° 447	7.3	E.	18 57.0	85	−1.0	−1.1	6.4	+3.8
26	BD +18° 594	6.6	E.	20 17.2	100	−0.8	−1.7	7.5	+3.0
28	BD +18° 1129	6.2	E.	22 30.4	106	−0.6	−1.7	9.6	+2.3
März 1	BD +17° 1518	6.7	E.	21 17.0	130	−0.9	−1.9	10.5	+3.4
2	λ Geminorum	3.6	E.	0 22.3	137	−0.1	−2.2	10.6	+0.4
2	BD +14° 1850	6.4	E.	21 15.3	143	−0.9	−2.0	11.5	+3.4
3	ϰ Cancri	5.1	E.	18 34.8	100	−1.0	+0.9	12.5	+3.8
8	50 Virginis	6.2	A.	3 50.9	291	−1.0	−1.4	16.8	+3.8
26	97 Tauri	5.1	E.	18 52.6	120	−0.7	−2.2	5.7	+2.7
30	A² Cancri	5.7	E.	19 13.5	56	−2.0	+1.8	9.7	+7.6
April 8	ψ Ophiuchi	4.6	A.	2 24.2	267	−1.6	0.0	18.0	+6.1
10	BD −19° 4886	6.3	A.	2 0.4	330	—	—	20.0	—
22	BD +18° 661	7.2−7.7	E.	18 55.2	113	−0.1	−2.0	3.1	+0.4
24	BD +17° 1306	7.4	E.	19 40.9	159	+0.2	−3.3	5.1	−+0.8
25	68 Geminorum	5.1	E.	18 55.6	116	−0.9	−1.7	6.1	+3.4
25	BD +15° 1598	6.7	E.	19 13.6	168	0.0	−3.8	6.1	0.0
28	BD +4° 2328	6.6	E.	21 3.8	104	−1.2	−1.2	9.2	+4.6
30	BD −4° 3235	6.5	E.	21 6.1	128	−1.2	−0.9	11.2	+4.6
Mai 6	BD −20° 4572	5.9	A.	0 24.4	267	−1.5	+0.4	16.2	+5.7
10	β Capricorni	3.2	A.	0 55.2	311	−0.9	+0.6	20.4	+3.4
27	BD −3° 3213	7.1	E.	20 19.7	142	−0.9	−1.7	8.7	+3.4
Juni 25	α Virginis	1.2	E.	16 22.0	126	−0.9	+0.1	8.2	+3.4
25	α Virginis	1.2	A.	17 33.4	281	−1.4	+0.2	8.2	+5.3
27	28 Librae	6.2	E.	21 48.0	131	−1.3	−1.4	10.3	+4.9
28	ν Scorpii	4.3	E.	19 58.7	45	−2.0	+1.6	12.3	+7.6
Juli 26	BD −20° 4572	5.9	E.	20 40.9	133	−1.6	−1.2	10.0	+6.1
28	BD −19° 5134	6.5	E.	23 16.6	72	−1.2	−0.6	12.1	+4.6
Aug. 10	68 Tauri	4.2	A.	0 43.9	242	−0.0	+1.9	24.2	0.0

Sternbedeckungen 1939

Ein- und Austritte für Berlin-Babelsberg

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Sept.	6	BD +16° 560	6.1	A.	0 23.2	235	−0.4	+2.2	21.9
	7	104 Tauri	5.0	A.	2 12.1	291	−1.1	+0.6	22.9
	21	BD −18° 5155	6.3	E.	19 1.8	84	−1.5	−0.4	8.3
Okt.	5	26 Geminorum	5.1	A.	23 57.7	308	−0.6	+0.5	22.6
	20	BD −15° 5626	6.2	E.	18 1.9	47	−1.3	+0.5	7.9
	20	β Capricorni	3.2	E.	18 10.2	51	−1.3	+0.4	7.9
	20	β Capricorni	3.2	A.	19 25.7	271	−1.4	−1.0	7.9
	30	BD +17° 750	6.2	A.	23 28.4	270	−1.4	+0.8	18.1
Nov.	1	119 Tauri	4.7	A.	0 32.2	290	−1.5	0.0	19.2
	1	120 Tauri	5.5	A.	1 19.2	276	−1.5	+0.1	19.2
	1	BD +17° 1214	6.5	A.	20 37.2	249	+0.2	+1.8	20.0
	3	68 Geminorum	5.1	A.	4 11.0	281	−1.5	−0.5	21.3
	18	BD −10° 5714	7.3	E.	16 40.6	128	—	—	7.4
	19	BD −6° 5972	7.5	E.	16 12.6	358	—	—	8.4
	20	BD −2° 5914	7.1	E.	22 30.9	30	−0.4	+0.5	9.6
	28	BD +18° 1112	6.4	A.	23 18.7	243	−1.3	+1.7	17.6
	29	BD +17° 1214	6.5	A.	4 44.2	222	−1.3	+0.3	17.8
	30	λ Geminorum	3.6	E.	2 41.6	93	−1.4	−0.5	18.8
	30	λ Geminorum	3.6	A.	3 52.5	294	−1.0	−1.6	18.8
Dez.	1	BD +14° 1850	6.4	A.	1 49.8	262	−1.5	+0.7	19.7
	2	κ Cancri	5.1	A.	1 4.1	270	−1.1	+1.1	20.7
	16	BD −8° 5818	6.6	E.	18 42.1	92	−1.1	−1.5	5.9
	17	BD −4° 5793	6.6	E.	20 33.1	27	−0.3	+0.6	6.9
	23	BD +14° 502	7.3	E.	0 22.0	31	−0.8	+0.7	12.1
	23	BD +16° 484	6.3	E.	15 49.3	7	—	—	12.8
	24	BD +16° 544	6.3	E.	2 54.1	39	−0.4	−0.1	13.2
	28	A^1 Cancri	5.7	A.	21 1.2	323	−0.7	−0.3	18.0
	28	A^2 Cancri	5.7	A.	23 4.0	249	−1.2	+1.9	18.1
	29	60 Cancri	5.7	A.	3 57.0	307	−0.8	−1.8	18.2

Ein- und Austritte für Breslau

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Jan.	1	BD +14° 469	6.8	E.	16 15.8	139	—	—	11.0
	1	Uranus	6.0	E.	17 14.4	68	−1.2	+1.4	11.0
	1	BD +15° 414	6.9	E.	21 30.1	99	−1.2	−1.4	11.1
	3	BD +19° 811	6.2	E.	19 48.5	134	−1.7	−1.5	13.1
	7	κ Cancri	5.1	A.	20 56.7	290	−0.7	+0.8	17.1
	8	14 Sextantis	6.3	A.	21 29.8	238	−0.7	+3.0	18.2

Sternbedeckungen 1939

Ein- und Austritte für Breslau

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Jan.	25	BD +2° 4752	6.9	E.	19 22.5	95	−0.5	−1.8	5.2
	26	62 Piscium	6.1	E.	16 39.4	85	−1.6	−0.6	6.1
	26	δ Piscium	4.6	E.	17 15.4	33	−1.0	+1.1	6.1
	28	29 Arietis	6.1	E.	19 14.3	34	−1.2	+1.3	8.2
	29	BD +17° 575	6.4	E.	22 22.2	39	−0.8	+0.2	9.3
	30	BD +18° 633	6.0	E.	18 3.9	97	−1.6	0.0	10.2
	30	ε Tauri	3.6	E.	20 4.5	85	−1.4	−0.5	10.3
Febr.	7	BD −1° 2546	6.2	A.	0 7.1	288	−1.3	+0.1	17.4
	8	χ Virginis	4.8	A.	3 51.2	289	−1.3	−1.1	18.6
	23	BD +9° 167	7.2	E.	17 50.2	11	−0.7	+2.6	4.4
	25	BD +15° 447	7.3	E.	19 2.5	88	−0.9	−1.3	6.4
	26	BD +18° 594	6.6	E.	20 22.2	102	−0.7	−1.7	7.5
	28	BD +18° 1129	6.2	E.	22 34.7	106	−0.5	−1.7	9.6
März	1	BD +17° 1518	6.7	E.	21 23.2	130	−0.9	−2.0	10.5
	2	λ Geminorum	3.6	E.	0 25.3	136	0.0	−2.1	10.6
	2	BD +14° 1850	6.4	E.	21 21.4	143	−0.9	−2.1	11.5
	3	ϰ Cancri	5.1	E.	18 37.8	103	−1.1	+0.7	12.5
	8	50 Virginis	6.2	A.	3 56.8	291	−1.0	−1.5	16.8
	26	97 Tauri	5.1	E.	18 58.1	121	−0.6	−2.3	5.7
	30	A² Cancri	5.7	E.	19 19.6	56	−2.1	+1.6	9.7
April	4	α Virginis	1.2	A.	19 26.7	281	−0.6	+1.1	14.8
	8	ψ Ophiuchi	4.6	A.	2 30.6	267	−1.6	−0.1	18.0
	10	BD −19° 4886	6.3	A.	2 5.1	329	—	—	20.0
	22	BD +18° 661	7.2–7.7	E.	18 57.8	113	0.0	−1.9	3.1
	24	BD +17° 1306	7.4	E.	19 44.2	158	+0.3	−3.2	5.1
	25	68 Geminorum	5.1	E.	19 1.1	115	−0.8	−1.8	6.1
	25	BD +15° 1598	6.7	E.	19 18.0	165	0.0	−3.6	6.1
	28	BD +4° 2328	6.6	E.	21 9.9	102	−1.1	−1.3	9.2
	30	BD −4° 3235	6.5	E.	21 12.1	127	−1.2	−1.1	11.2
Mai	6	BD −20° 4572	5.9	A.	0 30.3	267	−1.6	+0.2	16.2
	10	BD −15° 5626	6.2	A.	0 47.4	313	−1.0	+0.5	20.4
	10	β Capricorni	3.2	A.	0 58.1	309	−1.1	+0.6	20.4
	22	λ Geminorum	3.6	E.	18 47.6	93	−0.4	−1.5	3.6
	27	BD −3° 3213	7.1	E.	20 25.6	141	−0.9	−1.8	8.7
Juni	25	α Virginis	1.2	E.	16 25.9	125	−1.1	−0.1	8.2
	25	α Virginis	1.2	A.	17 39.4	283	−1.5	−0.1	8.2
	27	28 Librae	6.2	E.	21 55.1	133	−1.3	−1.6	10.3
	28	ν Scorpii	4.3	E.	20 4.7	45	−2.1	+1.4	12.3
Juli	22	BD −9° 3654	7.2	E.	20 2.4	128	−0.7	−1.9	5.9
	26	BD −20° 4572	5.9	E.	20 49.2	136	−1.7	−1.6	10.0
	28	BD −19° 5134	6.5	E.	23 22.4	78	−1.2	−0.8	12.1
Aug.	10	68 Tauri	4.2	A.	0 41.2	237	0.0	+2.0	24.2
Sept.	6	BD +16° 560	6.1	A.	0 21.9	229	−0.4	+2.3	21.9
	7	104 Tauri	5.0	A.	2 16.0	284	−1.2	+0.7	22.9
	20	BD −19° 4832	6.8	E.	17 51.7	87	−1.6	−0.4	7.3

Sternbedeckungen 1939

Ein- und Austritte für Breslau

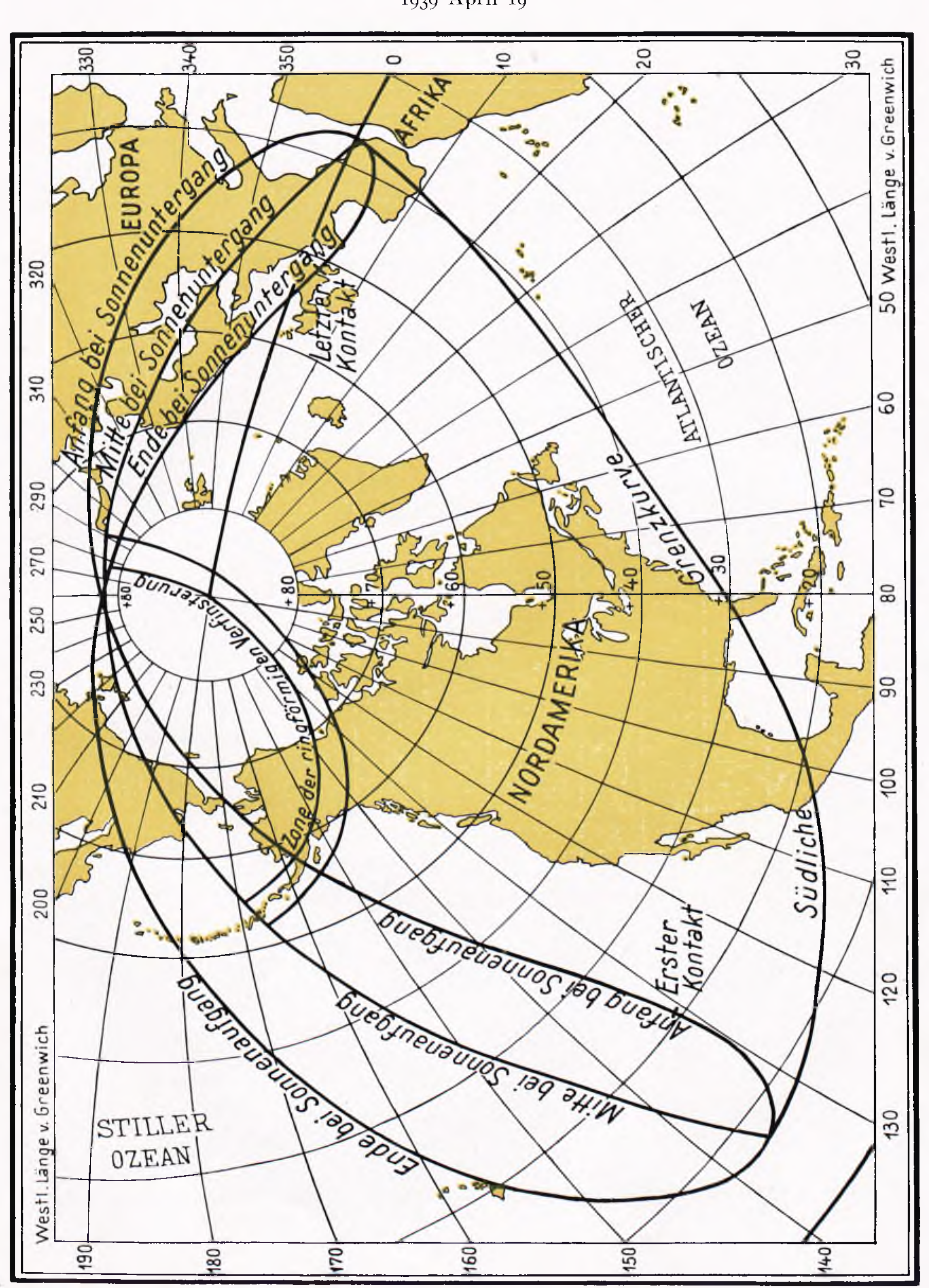
Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Sept.	21	BD −18° 5155	6.3	E.	19 8.7	89	−1.6	−0.7	8.3
Okt.	5	26 Geminorum	5.1	A.	23 59.4	302	−0.7	+0.6	22.6
	20	BD −15° 5626	6.2	E.	18 6.5	53	−1.3	+0.3	7.9
	20	β Capricorni	3.2	E.	18 14.9	57	−1.3	+0.2	7.9
	20	β Capricorni	3.2	A.	19 32.5	264	−1.3	−1.0	7.9
	30	BD +17° 750	6.2	A.	23 32.9	264	−1.5	+0.8	18.1
Nov.	1	119 Tauri	4.7	A.	0 38.3	284	−1.5	0.0	19.2
	1	120 Tauri	5.5	A.	1 25.2	272	−1.6	+0.1	19.2
	1	BD +17° 1214	6.5	A.	20 34.2	243	+0.1	+2.0	20.0
	3	68 Geminorum	5.1	A.	4 17.5	280	−1.5	−0.7	21.3
	19	BD −6° 5972	7.5	E.	16 10.1	9	−0.6	+2.7	8.4
	20	BD −2° 5914	7.1	E.	22 31.9	36	−0.4	+0.2	9.6
	28	BD +18° 1112	6.4	A.	23 21.5	237	−1.4	+1.9	17.6
	29	BD +17° 1214	6.5	A.	4 48.8	222	−1.2	+0.3	17.8
	30	λ Geminorum	3.6	E.	2 48.0	94	−1.4	−0.7	18.8
	30	λ Geminorum	3.6	A.	3 58.6	294	−1.0	−1.7	18.8
Dez.	1	BD +14° 1850	6.4	A.	1 55.2	260	−1.6	+0.6	19.7
	2	κ Cancri	5.1	A.	1 7.5	267	−1.3	+1.1	20.7
	13	BD −17° 5699 *seq.*	7.1	E.	15 36.3	34	−0.5	+0.2	2.6
	16	BD −8° 5818	6.6	E.	18 48.7	100	−1.1	−1.9	5.9
	17	BD −4° 5793	6.6	E.	20 33.6	34	−0.3	+0.2	6.9
	23	BD +14° 502	7.3	E.	0 24.4	34	−0.8	+0.5	12.1
	23	BD +16° 484	6.3	E.	15 42.8	19	+0.3	+3.1	12.8
	28	A^1 Cancri	5.7	A.	21 4.3	317	−0.7	−0.1	18.0
	28	A^2 Cancri	5.7	A.	23 6.6	245	−1.4	+2.0	18.1
	29	60 Cancri	5.7	A.	4 2.4	308	−0.7	−1.9	18.2

Ein- und Austritte für Frankfurt a. M.

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Jan.	1	Uranus	6.0	E.	17 4.0	62	−0.9	+1.7	11.0
	1	BD +15° 414	6.9	E.	21 20.4	102	−1.5	−1.3	11.1
	3	BD +19° 811	6.2	E.	19 35.4	132	−1.7	−1.0	13.1
	7	κ Cancri	5.1	A.	20 50.8	287	−0.5	+0.9	17.1
	8	14 Sextantis	6.3	A.	21 22.3	231	−0.3	+3.5	18.2
	22	BD −9° 5827	7.1	E.	16 51.9	100	−1.0	−2.0	2.1
	25	BD +2° 4752	6.9	E.	19 19.3	97	−0.7	−1.9	5.2
	26	δ Piscium	4.6	E.	17 5.5	28	−1.0	+1.7	6.1
	28	29 Arietis	6.1	E.	19 2.8	36	−1.2	+1.5	8.2
	29	BD +17° 575	6.4	E.	22 14.7	48	−1.0	0.0	9.3
	30	BD +18° 633	6.0	E.	17 50.7	96	−1.5	+0.4	10.2

Ringförmige Sonnenfinsternis

1939 April 19





Sternbedeckungen 1939

Ein- und Austritte für Frankfurt a. M.

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Jan.	30	ε Tauri	3.6	E.	19 52.6	89	−1.5	−0.3	10.3
Febr.	2	BD +18° 1349	6.2	E.	2 50.4	50	−0.6	−0.5	12.5
	6	BD −1° 2546	6.2	A.	23 55.6	277	−1.3	+0.7	17.4
	8	χ Virginis	4.8	A.	3 40.2	280	−1.5	−0.6	18.6
	11	28 Librae	6.2	A.	3 52.8	352	—	—	21.6
	23	BD +9° 167	7.2	E.	17 41.3	15	−0.8	+2.4	4.4
	25	BD +15° 447	7.3	E.	18 54.9	92	−1.2	−1.3	6.4
	26	BD +18° 594	6.6	E.	20 17.5	110	−0.9	−1.9	7.5
	28	BD +18° 1129	6.2	E.	22 31.8	115	−0.6	−1.9	9.6
März	1	BD +17° 1518	6.7	E.	21 17.5	141	−1.0	−2.3	10.5
	2	λ Geminorum	3.6	E.	0 27.4	147	0.0	−2.5	10.6
	2	BD +14° 1850	6.4	E.	21 16.5	156	−0.8	−2.6	11.5
	3	κ Cancri	5.1	E.	18 28.9	108	−0.9	+0.7	12.5
	8	50 Virginis	6.2	A.	3 49.1	286	−1.2	−1.3	16.8
	11	47 Librae	5.9	A.	4 18.1	286	−1.6	−0.4	19.8
	26	97 Tauri	5.1	E.	18 55.0	131	−0.8	−2.7	5.7
	30	A² Cancri	5.7	E.	19 1.7	70	−1.8	+1.2	9.7
April	8	ψ Ophiuchi	4.6	A.	2 16.3	263	−1.7	+0.4	18.0
	10	BD −19° 4886	6.3	A.	1 56.9	321	−0.9	−0.1	20.0
	24	26 Geminorum	5.1	E.	22 13.6	99	+0.1	−1.4	5.2
	25	68 Geminorum	5.1	E.	18 55.7	125	−0.9	−1.9	6.1
	28	BD +4° 2328	6.6	E.	21 1.1	112	−1.2	−1.3	9.2
	30	BD −4° 3235	6.5	E.	21 3.2	138	−1.1	−1.1	11.2
Mai	6	BD −20° 4572	5.9	A.	0 16.1	262	−1.6	+0.7	16.2
	8	BD −19° 5134	6.5	A.	1 52.7	272	−1.6	+0.6	18.4
	27	BD −3° 3213	7.1	E.	20 19.6	150	−0.9	−1.8	8.7
Juni	25	α Virginis	1.2	E.	16 18.3	137	−0.8	−0.2	8.2
	25	α Virginis	1.2	A.	17 26.0	272	−1.6	+0.5	8.2
	27	28 Librae	6.2	E.	21 44.7	135	−1.4	−1.4	10.3
	28	ν Scorpii	4.3	E.	19 46.3	55	−2.0	+1.6	12.3
Juli	26	BD −20° 4572	5.9	E.	20 36.4	137	−1.7	−1.2	10.0
	28	BD −19° 5134	6.5	E.	23 12.1	72	−1.4	−0.4	12.1
Sept.	6	BD +16° 560	6.1	A.	0 16.6	234	−0.3	+2.2	21.9
	7	104 Tauri	5.0	A.	2 5.6	288	−1.1	+0.8	22.9
	11	κ Cancri	5.1	A.	3 59.2	273	−0.3	+1.3	27.0
	21	BD −18° 5155	6.3	E.	18 55.2	85	−1.7	−0.2	8.3
Okt.	3	BD +16° 544	6.3	A.	4 6.7	260	−1.5	−0.3	19.7
	5	26 Geminorum	5.1	A.	23 54.0	305	−0.5	+0.5	22.6
	8	A² Cancri	5.7	A.	4 23.8	302	−1.1	+0.1	24.7
	20	BD −15° 5626	6.2	E.	17 54.5	47	−1.4	+0.8	7.9
	20	β Capricorni	3.2	E.	18 2.8	51	−1.4	+0.7	7.9
	20	β Capricorni	3.2	A.	19 21.0	271	−1.6	−0.8	7.9
	30	BD +17° 750	6.2	A.	23 20.2	267	−1.3	+1.0	18.1
Nov.	1	119 Tauri	4.7	A.	0 25.3	284	−1.5	+0.4	19.2
	1	120 Tauri	5.5	A.	1 11.8	270	−1.5	+0.5	19.2

Sternbedeckungen 1939

Ein- und Austritte für Frankfurt a. M.

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Nov.	3	68 Geminorum	5.1	A.	4 4.8	272	−1.6	0.0	21.3
	5	ω Leonis	5.5	A.	5 10.9	273	−1.6	+0.3	23.4
	18	BD −10° 5714	7.3	E.	16 31.7	127	—	—	7.4
	20	BD −2° 5914	7.1	E.	22 27.9	35	−0.5	+0.4	9.6
	28	BD +18° 1112	6.4	A.	23 8.6	236	−1.2	+2.2	17.6
	30	λ Geminorum	3.6	E.	2 36.3	102	−1.5	−0.6	18.8
	30	λ Geminorum	3.6	A.	3 50.7	284	−1.3	−1.2	18.8
Dez.	1	BD +14° 1850	6.4	A.	1 40.5	252	−1.6	+1.4	19.7
	2	κ Cancri	5.1	A.	0 56.1	261	−1.1	+1.6	20.7
	16	BD −8° 5818	6.6	E.	18 40.2	94	−1.3	−1.5	5.9
	17	BD −4° 5793	6.6	E.	20 30.4	33	−0.4	+0.4	6.9
	23	BD +14° 502	7.3	E.	0 17.1	42	−0.9	+0.2	12.1
	24	BD +16° 544	6.3	E.	2 52.9	50	−0.4	−0.4	13.2
	28	A¹ Cancri	5.7	A.	20 58.8	316	−0.6	0.0	18.0
	28	A² Cancri	5.7	A.	22 53.5	238	−1.1	+2.7	18.1
	29	60 Cancri	5.7	A.	3 56.9	298	−1.0	−1.6	18.2

Ein- und Austritte für Königsberg

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Jan.	1	BD +14° 469	6.8	E.	16 19.3	129	−1.7	−0.4	11.0
	1	Uranus	6.0	E.	17 23.3	62	−1.1	+1.4	11.0
	1	BD +15° 414	6.9	E.	21 29.3	88	−1.0	−1.1	11.1
	3	BD +19° 811	6.2	E.	19 49.7	121	−1.4	−0.7	13.1
	7	κ Cancri	5.1	A.	21 1.3	301	−0.7	+0.5	17.1
	8	14 Sextantis	6.3	A.	21 40.9	254	−0.7	+2.0	18.2
	12	ψ Virginis	4.9	A.	1 14.0	237	−1.5	+2.9	21.3
	25	BD +2° 4752	6.9	E.	19 17.8	84	−0.4	−1.5	5.2
	26	62 Piscium	6.1	E.	16 42.2	77	−1.3	−0.5	6.1
	26	δ Piscium	4.6	E.	17 22.8	22	−0.7	+1.5	6.1
	28	29 Arietis	6.1	E.	19 24.1	17	−1.0	+2.4	8.2
	28	BD +14° 439	7.4	E.	22 18.2	137	+0.2	−3.4	8.3
	29	BD +17° 575	6.4	E.	22 28.2	16	—	—	9.3
	30	BD +18° 624	6.0	E.	15 50.7	119	−1.3	+0.2	10.1
	30	BD +18° 633	6.0	E.	18 9.3	87	−1.4	+0.2	10.2
	30	ε Tauri	3.6	E.	20 7.9	74	−1.2	−0.3	10.3
Febr.	1	BD +18° 920	7.5	E.	2 1.5	157	+0.7	−2.7	11.5
	1	BD +18° 923	6.7	E.	2 10.3	156	+0.7	−2.6	11.5
	7	BD −1° 2546	6.2	A.	0 10.9	299	−1.1	−0.2	17.4
	8	χ Virginis	4.8	A.	3 51.2	296	−1.1	−1.2	18.6
	21	BD +1° 4773	6.4	E.	16 34.7	9	−0.2	+2.0	2.3
	25	BD +15° 447	7.3	E.	19 1.2	76	−0.8	−1.0	6.4
	26	BD +18° 594	6.6	E.	20 18.7	90	−0.6	−1.5	7.5

Sternbedeckungen 1939

Ein- und Austritte für Königsberg

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Febr.	28	BD +18° 1129	6.2	E.	22 30.5	96	−0.5	−1.6	9.6
März	1	BD +17° 1518	6.7	E.	21 19.7	118	−0.9	−1.6	10.5
	2	λ Geminorum	3.6	E.	0 17.9	127	0.0	−2.0	10.6
	2	BD +14° 1850	6.4	E.	21 18.1	130	−0.9	−1.6	11.5
	3	ϰ Cancri	5.1	E.	18 44.5	90	−1.1	+1.0	12.5
	26	BD +18° 734	6.8	E.	17 44.9	146	−0.6	−3.6	5.6
	26	97 Tauri	5.1	E.	18 52.7	109	−0.6	−1.9	5.7
	29	BD +15° 1676	7.2	E.	20 46.8	173	—	—	8.8
April	4	α Virginis	1.2	A.	19 32.2	293	−0.6	+0.9	14.8
	8	ψ Ophiuchi	4.6	A.	2 35.0	271	−1.4	−0.3	18.0
	10	BD −19° 4886	6.3	A.	2 5.0	341	—	—	20.0
	22	BD +18° 661	7.2–7.7	E.	18 51.3	103	0.0	−1.7	3.1
	24	BD +17° 1306	7.4	E.	19 33.7	143	0.0	−2.5	5.1
	25	68 Geminorum	5.1	E.	18 57.9	105	−0.8	−1.6	6.1
	25	BD +15° 1598	6.7	E.	19 7.8	150	−0.3	−2.6	6.1
	28	BD +4° 2328	6.6	E.	21 9.1	94	−1.0	−1.2	9.2
	30	BD −4° 3235	6.5	E.	21 12.5	118	−1.2	−0.9	11.2
Mai	6	BD −20° 4572	5.9	A.	0 35.9	271	−1.5	0.0	16.2
	10	BD −15° 5626	6.2	A.	0 52.2	321	—	—	20.4
	10	β Capricorni	3.2	A.	1 3.7	316	—	—	20.4
	27	BD −3° 3213	7.1	E.	20 22.7	133	−0.9	−1.6	8.7
Juni	25	α Virginis	1.2	E.	16 29.9	115	−1.1	+0.2	8.2
	25	α Virginis	1.2	A.	17 43.3	292	−1.3	−0.3	8.2
	27	28 Librae	6.2	E.	21 53.5	128	−1.2	−1.6	10.3
	28	ν Scorpii	4.3	E.	20 16.8	34	—	—	12.3
Juli	26	BD −20° 4572	5.9	E.	20 49.1	132	−1.5	−1.4	10.0
Aug.	10	68 Tauri	4.2	A.	0 48.4	241	−0.1	+2.0	24.2
Sept.	6	BD +16° 560	6.1	A.	0 31.7	234	−0.6	+2.2	21.9
	7	104 Tauri	5.0	A.	2 22.1	293	−1.2	+0.4	22.9
	20	BD −19° 4832	6.8	E.	17 55.1	84	−1.4	−0.5	7.3
	21	BD −18° 5155	6.3	E.	19 10.9	86	−1.3	−0.8	8.3
Okt.	6	26 Geminorum	5.1	A.	0 3.4	310	−0.8	+0.4	22.6
	20	BD −15° 5626	6.2	E.	18 11.4	50	−1.1	+0.1	7.9
	20	β Capricorni	3.2	E.	18 19.3	54	−1.1	0.0	7.9
	20	β Capricorni	3.2	A.	19 32.7	268	−1.1	−1.2	7.9
	23	BD −4° 5757	6.8	E.	23 27.2	139	—	—	11.1
	30	64 Tauri	4.8	A.	18 40.8	228	+0.2	+2.1	18.0
	30	BD +17° 750	6.2	A.	23 39.9	273	−1.4	+0.4	18.1
Nov.	1	119 Tauri	4.7	A.	0 42.4	295	−1.4	−0.5	19.2
	1	120 Tauri	5.5	A.	1 29.6	283	−1.4	−0.4	19.2
	1	BD +17° 1214	6.5	A.	20 40.9	249	0.0	+1.9	20.0
	3	68 Geminorum	5.1	A.	4 18.8	292	−1.2	−1.1	21.3
	18	BD −10° 5714	7.3	E.	16 56.3	134	—	—	7.4
	19	BD −6° 5972	7.5	E.	16 21.2	5	—	—	8.4
	20	BD −2° 5914	7.1	E.	22 34.0	24	−0.2	+0.6	9.6

Sternbedeckungen 1939

Ein- und Austritte für Königsberg

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Nov.	28	BD +18° 1112	6.4	A.	23 31.7	250	−1.3	+1.1	17.6
	29	BD +17° 1214	6.5	A.	4 50.9	237	−0.7	−0.7	17.8
	30	λ Geminorum	3.6	E.	2 50.4	82	−1.3	−0.5	18.8
	30	λ Geminorum	3.6	A.	3 55.0	305	−0.7	−1.9	18.8
Dez.	1	BD +14° 1850	6.4	A.	2 1.3	273	−1.4	0.0	19.7
	2	ϰ Cancri	5.1	A.	1 14.7	280	−1.2	+0.6	20.7
	23	BD +14° 502	7.3	E.	0 31.2	12	—	—	12.1
	23	BD +16° 484	6.3	E.	15 53.7	12	+0.4	+3.6	12.8
	28	A^1 Cancri	5.7	A.	21 5.4	331	−0.7	−0.7	18.0
	28	A^2 Cancri	5.7	A.	23 16.9	259	−1.3	+1.2	18.1
	29	60 Cancri	5.7	A.	3 57.3	318	−0.5	−2.1	18.2

Ein- und Austritte für München

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
Jan.	1	BD +14° 469	6.8	E.	16 7.2	141	—	—	11.0
	1	Uranus	6.0	E.	17 3.9	70	−1.1	+1.5	11.0
	1	BD +15° 414	6.9	E.	21 27.7	110	−1.4	−1.8	11.1
	3	BD +19° 811	6.2	E.	19 44.4	146	—	—	13.1
	7	ϰ Cancri	5.1	A.	20 50.5	281	−0.6	+1.0	17.1
	8	14 Sextantis	6.3	A.	21 14.5	216	—	—	18.2
	22	BD −9° 5827	7.1	E.	16 59.2	111	−1.0	−2.6	2.1
	25	BD +2° 4752	6.9	E.	19 25.3	105	−0.7	−2.2	5.2
	26	δ Piscium	4.6	E.	17 5.9	38	−1.2	+1.2	6.1
	28	29 Arietis	6.1	E.	19 4.4	44	−1.4	+1.0	8.2
	29	BD +17° 575	6.4	E.	22 17.8	54	−0.9	−0.2	9.3
	30	BD +18° 633	6.0	E.	17 55.0	104	−1.7	0.0	10.2
	30	ε Tauri	3.6	E.	19 58.3	95	−1.6	−0.7	10.3
Febr.	2	BD +18° 1349	6.2	E.	2 53.0	51	−0.5	−0.5	12.5
	6	BD −1° 2546	6.2	A.	23 58.3	274	−1.5	+0.7	17.4
	8	χ Virginis	4.8	A.	3 46.1	280	−1.6	−0.8	18.6
	11	28 Librae	6.2	A.	3 57.5	350	—	—	21.6
	23	BD +9° 167	7.2	E.	17 40.2	26	−0.9	+1.4	4.4
	25	BD +15° 447	7.3	E.	19 1.0	98	−1.1	−1.6	6.4
	26	BD +18° 594	6.6	E.	20 23.9	114	−0.8	−2.1	7.5
	28	BD +18° 1129	6.2	E.	22 37.2	118	−0.5	−1.9	9.6
März	1	BD +17° 1518	6.7	E.	21 25.0	144	−0.9	−2.6	10.5
	2	λ Geminorum	3.6	E.	0 32.3	148	+0.1	−2.5	10.6
	2	BD +15° 1775	6.1	E.	20 26.6	38	—	—	11.5
	2	BD +14° 1850	6.4	E.	21 24.1	160	−0.7	−3.0	11.5
	3	ϰ Cancri	5.1	E.	18 30.4	113	−1.0	+0.4	12.5
	8	50 Virginis	6.2	A.	3 55.0	285	−1.2	−1.3	16.8
	11	47 Librae	5.9	A.	4 23.8	284	−1.7	−0.5	19.8

Ein- und Austritte für München

Tag		Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1939			m		h m	°	m	m	d
März	26	97 Tauri	5.1	E.	19 2.6	136	−0.6	−3.0	5.7
	30	A² Cancri	5.7	E.	19 5.2	74	−1.9	+0.9	9.7
April	8	ψ Ophiuchi	4.6	A.	2 20.9	261	−1.8	+0.3	18.0
	10	BD −19° 4886	6.3	A.	1 59.8	318	−1.1	−0.2	20.0
	22	BD +18° 661	7.2–7.7	E.	19 4.0	126	0.0	−2.3	3.1
	25	68 Geminorum	5.1	E.	19 2.1	127	−0.9	−2.0	6.1
	28	BD +4° 2328	6.6	E.	21 7.5	112	−1.2	−1.4	9.2
	30	BD −4° 3235	6.5	E.	21 8.8	138	−1.2	−1.2	11.2
Mai	6	BD −20° 4572	5.9	A.	0 19.7	261	−1.8	+0.6	16.2
	8	BD −19° 5134	6.5	A.	1 56.7	269	−1.8	+0.5	18.4
	10	BD −15° 5626	6.2	A.	0 41.1	305	−0.8	+0.7	20.4
	10	β Capricorni	3.2	A.	0 50.9	302	−0.9	+0.8	20.4
	27	BD −3° 3213	7.1	E.	20 26.0	151	−0.9	−2.0	8.7
Juni	25	α Virginis	1.2	E.	16 21.3	138	−0.9	−0.4	8.2
	25	α Virginis	1.2	A.	17 30.0	271	−1.7	+0.5	8.2
	27	28 Librae	6.2	E.	21 52.2	138	−1.5	−1.7	10.3
	28	ν Scorpii	4.3	E.	19 49.3	56	−2.1	+1.5	12.3
Juli	22	BD −9° 3654	7.2	E.	20 3.9	133	−0.9	−2.0	5.9
	26	BD −20° 4572	5.9	E.	20 44.4	141	−1.9	−1.6	10.0
	28	BD −19° 5134	6.5	E.	23 17.4	78	−1.5	−0.6	12.1
Sept.	6	BD +16° 560	6.1	A.	0 12.8	227	−0.3	+2.4	21.9
	7	104 Tauri	5.0	A.	2 7.2	281	−1.1	+0.9	22.9
	21	BD −18° 5155	6.3	E.	19 1.1	90	−1.8	−0.4	8.3
Okt.	5	26 Geminorum	5.1	A.	23 54.3	297	−0.5	+0.7	22.6
	20	BD −15° 5626	6.2	E.	17 57.4	53	−1.5	+0.6	7.9
	20	β Capricorni	3.2	E.	18 6.0	57	−1.6	+0.5	7.9
	20	β Capricorni	3.2	A.	19 27.4	263	−1.5	−0.7	7.9
	30	BD +17° 750	6.2	A.	23 22.0	259	−1.4	+1.2	18.1
Nov.	1	119 Tauri	4.7	A.	0 28.9	277	−1.6	+0.5	19.2
	1	120 Tauri	5.5	A.	1 15.2	263	−1.6	+0.7	19.2
	1	BD +17° 1214	6.5	A.	20 29.8	241	+0.3	+1.9	20.0
	3	68 Geminorum	5.1	A.	4 9.8	268	−1.7	0.0	21.3
	20	BD −2° 5914	7.1	E.	22 29.1	44	−0.5	+0.1	9.6
	28	BD +18° 1112	6.4	A.	23 7.7	228	−1.3	+2.7	17.6
	30	λ Geminorum	3.6	E.	2 42.3	106	−1.5	−0.9	18.8
	30	λ Geminorum	3.6	A.	3 56.8	281	−1.3	−1.2	18.8
Dez.	1	BD +14° 1850	6.4	A.	1 42.6	246	−1.8	+1.6	19.7
	2	κ Cancri	5.1	A.	0 56.3	255	−1.3	+1.8	20.7
	16	BD −8° 5818	6.6	E.	18 47.6	104	−1.4	−2.0	5.9
	17	BD −4° 5793	6.6	E.	20 31.3	41	−0.5	+0.1	6.9
	19	BD +4° 63	6.6	E.	22 26.4	11	−0.4	+2.4	9.0
	23	BD +14° 502	7.3	E.	0 19.5	48	−0.8	0.0	12.1
	28	A¹ Cancri	5.7	A.	21 0.3	308	−0.6	+0.2	18.0
	28	A² Cancri	5.7	A.	22 51.2	229	−1.3	+3.4	18.1
	29	60 Cancri	5.7	A.	4 3.0	297	−1.0	−1.6	18.2

Mond 1939

0^h Welt-Zeit		Mondbewegung			Lage des Mondäquators gegen den Erdäquator							
		☊	$L_☾$	$M_☾$	i		Δ		☊′		$\Delta - ☋$	
1939		°	°	°	°		°		°		°	
Jan.	1	224.8814	41.6201	280.40	24.558	10	42.497	506	2.614	25	357.612	23
	11	224.3519	173.3841	51.05	24.568	9	41.991	506	2.589	26	357.635	23
	21	223.8224	305.1480	181.70	24.577	10	41.485	506	2.563	26	357.658	24
	31	223.2928	76.9120	312.35	24.587	9	40.979	505	2.537	26	357.682	24
Febr.	10	222.7633	208.6760	83.00	24.596	9	40.474	506	2.511	26	357.706	24
	20	222.2337	340.4399	213.65	24.605	9	39.968	506	2.485	26	357.730	24
März	2	221.7042	112.2039	344.30	24.614	9	39.462	505	2.459	26	357.754	24
	12	221.1747	243.9679	114.95	24.623	9	38.957	506	2.433	27	357.778	24
	22	220.6451	15.7318	245.60	24.632	8	38.451	505	2.406	27	357.802	25
April	1	220.1156	147.4958	16.25	24.640	9	37.946	505	2.379	27	357.827	25
	11	219.5861	279.2598	146.90	24.649	9	37.441	505	2.352	27	357.852	25
	21	219.0565	51.0237	277.55	24.658	8	36.936	504	2.325	27	357.877	25
Mai	1	218.5270	182.7877	48.20	24.666	9	36.432	505	2.298	28	357.902	25
	11	217.9974	314.5517	178.85	24.675	8	35.927	504	2.270	28	357.927	25
	21	217.4679	86.3156	309.50	24.683	8	35.423	504	2.242	28	357.952	26
	31	216.9384	218.0796	80.15	24.691	9	34.919	504	2.214	28	357.978	26
Juni	10	216.4088	349.8436	210.80	24.700	8	34.415	503	2.186	28	358.004	26
	20	215.8793	121.6076	341.45	24.708	8	33.912	504	2.158	28	358.030	26
	30	215.3497	253.3715	112.10	24.716	8	33.408	503	2.130	28	358.056	26
Juli	10	214.8202	25.1355	242.75	24.724	7	32.905	504	2.102	29	358.082	26
	20	214.2907	156.8995	13.40	24.731	8	32.401	503	2.073	29	358.108	26
	30	213.7611	288.6634	144.05	24.739	7	31.898	504	2.044	29	358.134	26
Aug.	9	213.2316	60.4274	274.70	24.746	8	31.394	503	2.015	29	358.160	27
	19	212.7020	192.1914	45.35	24.754	7	30.891	503	1.986	29	358.187	27
	29	212.1725	323.9553	176.00	24.761	7	30.388	502	1.957	29	358.214	27
Sept.	8	211.6430	95.7193	306.65	24.768	7	29.886	503	1.928	29	358.241	27
	18	211.1134	227.4833	77.30	24.775	7	29.383	502	1.899	30	358.268	27
	28	210.5839	359.2472	207.95	24.782	7	28.881	503	1.869	30	358.295	27
Okt.	8	210.0543	131.0112	338.59	24.789	6	28.378	502	1.839	30	358.322	27
	18	209.5248	262.7752	109.24	24.795	7	27.876	502	1.809	30	358.349	28
	28	208.9953	34.5391	239.89	24.802	6	27.374	502	1.779	30	358.377	27
Nov.	7	208.4657	166.3031	10.54	24.808	7	26.872	502	1.749	31	358.404	28
	17	207.9362	298.0671	141.19	24.815	6	26.370	502	1.718	30	358.432	28
	27	207.4067	69.8310	271.84	24.821	6	25.868	501	1.688	31	358.460	28
Dez.	7	206.8771	201.5950	42.49	24.827	6	25.367	502	1.657	31	358.488	28
	17	206.3476	333.3590	173.14	24.833	5	24.865	501	1.626	30	358.516	28
	27	205.8180	105.1230	303.79	24.838	6	24.364	501	1.596	31	358.544	28
	37	205.2885	236.8869	74.44	24.844		23.863		1.565		358.572	

Tag		0^h Welt-Zeit								
		$\alpha_☾ - \alpha_k$			$\delta_☾ - \delta_k$			log sin p_k		
1939										
Jan.	1	+ 1.86 s	−0.71 s	−0.34 s	+ 41.8″	+22.3″	+ 0.4″	8.22636	+740	+ 26
	2	+ 1.15	−1.01	−0.30	+ 64.1	+23.0	+ 0.7	8.23376	+707	− 33
	3	+ 0.14	−1.21	−0.20	+ 87.1	+24.3	+ 1.3	8.24083	+610	− 97
	4	− 1.07	−1.28	−0.07	+111.4	+25.5	+ 1.2	8.24693	+448	−162
	5	− 2.35	−1.23	+0.05	+136.9	+25.6	+ 0.1	8.25141	+233	−215
	6	− 3.58	−1.14	+0.09	+162.5	+23.1	− 2.5	8.25374	− 8	−241
	7	− 4.72	−1.06	+0.08	+185.6	+17.8	− 5.3	8.25366	−240	−232
	8	− 5.78	−1.03	+0.03	+203.4	+ 9.8	− 8.0	8.25126	−437	−197
	9	− 6.81	−1.05	−0.02	+213.2	+ 0.2	− 9.6	8.24689	−578	−141
	10	− 7.86	−1.07	−0.02	+213.4	− 9.8	−10.0	8.24111	−656	− 78
	11	− 8.93	−1.04	+0.03	+203.6	−19.1	− 9.3	8.23455	−676	− 20
	12	− 9.97	−0.91	+0.13	+184.5	−27.2	− 8.1	8.22779	−647	+ 29
	13	−10.88		+0.24	+157.3		− 6.1	8.22132		+ 62
Jan.	28	+ 1.85 s	−0.11 s		+ 38.7″	+23.3″		8.21766	+646	
	29	+ 1.74	−0.29	−0.18 s	+ 62.0	+22.9	− 0.4″	8.22412	+694	+ 48
	30	+ 1.45	−0.47	−0.18	+ 84.9	+22.2	− 0.7	8.23106	+698	+ 4
	31	+ 0.98	−0.66	−0.19	+107.1	+21.6	− 0.6	8.23804	+646	− 52
Febr.	1	+ 0.32	−0.86	−0.20	+128.7	+21.1	− 0.5	8.24450	+531	−115
	2	− 0.54	−1.08	−0.22	+149.8	+19.9	− 1.2	8.24981	+353	−178
	3	− 1.62	−1.28	−0.20	+169.7	+17.4	− 2.5	8.25334	+126	−227
	4	− 2.90	−1.47	−0.19	+187.1	+12.6	− 4.8	8.25460	−120	−246
	5	− 4.37	−1.61	−0.14	+199.7	+ 5.4	− 7.2	8.25340	−353	−233
	6	− 5.98	−1.68	−0.07	+205.1	− 3.6	− 9.0	8.24987	−542	−189
	7	− 7.66	−1.65	+0.03	+201.5	−13.7	−10.1	8.24445	−671	−129
	8	− 9.31	−1.50	+0.15	+187.8	−23.3	− 9.6	8.23774	−730	− 59
	9	−10.81	−1.17	+0.33	+164.5	−31.3	− 8.0	8.23044	−729	+ 1
	10	−11.98	−0.68	+0.49	+133.2	−36.7	− 5.4	8.22315	−677	+ 52
	11	−12.66	−0.07	+0.61	+ 96.5	−38.9	− 2.2	8.21638	−591	+ 86
	12	−12.73	+0.59	+0.66	+ 57.6	−37.7	+ 1.2	8.21047	−484	+107
	13	−12.14		+0.61	+ 19.9		+ 4.0	8.20563		+117
Febr.	26	+ 0.75 s	+0.03 s		+ 79.7″	+23.2″		8.22339	+563	
	27	+ 0.78	−0.01	−0.04 s	+102.9	+21.4	− 1.8″	8.22902	+579	+ 16
	28	+ 0.77	−0.13	−0.12	+124.3	+19.1	− 2.3	8.23481	+559	− 20
März	1	+ 0.64	−0.37	−0.24	+143.4	+16.6	− 2.5	8.24040	+489	− 70
	2	+ 0.27	−0.72	−0.35	+160.0	+13.9	− 2.7	8.24529	+368	−121
	3	− 0.45	−1.12	−0.40	+173.9	+10.7	− 3.2	8.24897	+197	−171
	4	− 1.57	−1.51	−0.39	+184.6	+ 6.2	− 4.5	8.25094	− 7	−204
	5	− 3.08	−1.83	−0.32	+190.8	− 0.1	− 6.3	8.25087	−221	−214
	6	− 4.91	−2.02	−0.19	+190.7	− 8.2	− 8.1	8.24866	−420	−199
	7	− 6.93	−2.02	0.00	+182.5	−17.5	− 9.3	8.24446	−577	−157
	8	− 8.95	−1.80	+0.22	+165.0	−26.6	− 9.1	8.23869	−675	− 98
	9	−10.75	−1.35	+0.45	+138.4	−33.9	− 7.3	8.23194	−711	− 36
	10	−12.10	−0.68	+0.67	+104.5	−38.2	− 4.3	8.22483	−689	+ 22
	11	−12.78		+0.79	+ 66.3		− 0.7	8.21794		+ 68

Mondkrater Mösting A. 1939

Tag		0ʰ Welt-Zeit								
		$\alpha_{☾} - \alpha_k$			$\delta_{☾} - \delta_k$			log sin p_k		
1939										
März	11	−12.78ˢ	+0.11ˢ	+0.79ˢ	+ 66.3″	−38.9″	−0.7″	8.21794	−621	+ 68
	12	−12.67	+0.85	+0.74	+ 27.4	−35.7	+3.2	8.21173	−519	+102
	13	−11.82	+1.45	+0.60	− 8.3	−29.6	+6.1	8.20654	−396	+123
	14	−10.37		+0.38	− 37.9		+8.2	8.20258		+131
März	28	− 0.30ˢ	+0.17ˢ		+140.4″	+16.8″		8.23371	+379	
	29	− 0.13	−0.06	−0.23ˢ	+157.2	+12.8	−4.0″	8.23750	+334	− 45
	30	− 0.19	−0.42	−0.36	+170.0	+ 8.6	−4.2	8.24084	+257	− 77
	31	− 0.61	−0.87	−0.45	+178.6	+ 4.3	−4.3	8.24341	+147	−110
April	1	− 1.48	−1.33	−0.46	+182.9	− 0.6	−4.9	8.24488	+ 8	−139
	2	− 2.81	−1.73	−0.40	+182.3	− 6.6	−6.0	8.24496	−150	−158
	3	− 4.54	−1.97	−0.24	+175.7	−13.8	−7.2	8.24346	−308	−158
	4	− 6.51	−2.01	−0.04	+161.9	−21.9	−8.1	8.24038	−449	−141
	5	− 8.52	−1.78	+0.23	+140.0	−29.5	−7.6	8.23589	−554	−105
	6	−10.30	−1.26	+0.52	+110.5	−35.4	−5.9	8.23035	−612	− 58
	7	−11.56	−0.52	+0.74	+ 75.1	−38.1	−2.7	8.22423	−619	− 7
	8	−12.08	+0.31	+0.83	+ 37.0	−36.9	+1.2	8.21804	−580	+ 39
	9	−11.77	+1.05	+0.74	+ 0.1	−32.0	+4.9	8.21224	−499	+ 81
	10	−10.72	+1.57	+0.52	− 31.9	−24.3	+7.7	8.20725	−388	+111
	11	− 9.15	+1.84	+0.27	− 56.2	−15.4	+8.9	8.20337	−259	+129
	12	− 7.31	+1.86	+0.02	− 71.6	− 6.2	+9.2	8.20078	−121	+138
	13	− 5.45		−0.19	− 77.8		+8.2	8.19957		+137
April	26	− 1.50ˢ	−0.04ˢ		+171.2″	+ 9.4″		8.23752	+122	
	27	− 1.54	−0.36	−0.32ˢ	+180.6	+ 4.0	−5.4″	8.23874	+ 63	− 59
	28	− 1.90	−0.75	−0.39	+184.6	− 1.4	−5.4	8.23937	− 7	− 70
	29	− 2.65	−1.16	−0.41	+183.2	− 7.1	−5.7	8.23930	− 88	− 81
	30	− 3.81	−1.50	−0.34	+176.1	−13.2	−6.1	8.23842	−180	− 92
Mai	1	− 5.31	−1.70	−0.20	+162.9	−19.9	−6.7	8.23662	−276	− 96
	2	− 7.01	−1.69	+0.01	+143.0	−26.7	−6.8	8.23386	−369	− 93
	3	− 8.70	−1.42	+0.27	+116.3	−32.5	−5.8	8.23017	−444	− 75
	4	−10.12	−0.87	+0.55	+ 83.8	−36.2	−3.7	8.22573	−493	− 49
	5	−10.99	−0.15	+0.72	+ 47.6	−36.6	−0.4	8.22080	−507	− 14
	6	−11.14	+0.61	+0.76	+ 11.0	−33.3	+3.3	8.21573	−486	+ 21
	7	−10.53	+1.24	+0.63	− 22.3	−26.9	+6.4	8.21087	−430	+ 56
	8	− 9.29	+1.64	+0.40	− 49.2	−18.4	+8.5	8.20657	−340	+ 90
	9	− 7.65	+1.79	+0.15	− 67.6	− 9.1	+9.3	8.20317	−225	+115
	10	− 5.86	+1.71	−0.08	− 76.7	− 0.2	+8.9	8.20092	− 95	+130
	11	− 4.15	+1.48	−0.23	− 76.9	+ 7.4	+7.6	8.19997	+ 43	+138
	12	− 2.67		−0.33	− 69.5		+6.1	8.20040		+137
Mai	26	− 3.78ˢ	−0.86ˢ		+190.0″	− 6.6″		8.23812	−209	
	27	− 4.64	−1.13	−0.27ˢ	+183.4	−13.2	−6.6″	8.23603	−255	− 46
	28	− 5.77	−1.33	−0.20	+170.2	−19.6	−6.4	8.23348	−294	− 39
	29	− 7.10	−1.38	−0.05	+150.6	−25.9	−6.3	8.23054	−330	− 36
	30	− 8.48	−1.23	+0.15	+124.7	−31.3	−5.4	8.22724	−363	− 33
	31	− 9.71		+0.37	+ 93.4		−3.7	8.22361		− 26

Tag		0ʰ Welt-Zeit								
		$\alpha_{☾}-\alpha_k$			$\delta_{☾}-\delta_k$			log sin p_k		
1939		s	s	s	"	"	"			
Mai	31	− 9.71	−0.86	+0.37	+ 93.4	−35.0	−3.7	8.22361	−389	− 26
Juni	1	−10.57	−0.28	+0.58	+ 58.4	−36.1	−1.1	8.21972	−406	− 17
	2	−10.85	+0.39	+0.67	+ 22.3	−34.0	+2.1	8.21566	−406	0
	3	−10.46	+1.00	+0.61	− 11.7	−28.7	+5.3	8.21160	−383	+ 23
	4	− 9.46	+1.46	+0.46	− 40.4	−20.8	+7.9	8.20777	−335	+ 48
	5	− 8.00	+1.68	+0.22	− 61.2	−11.8	+9.0	8.20442	−265	+ 70
	6	− 6.32	+1.69	+0.01	− 73.0	− 2.8	+9.0	8.20177	−171	+ 94
	7	− 4.63	+1.55	−0.14	− 75.8	+ 5.4	+8.2	8.20006	− 56	+115
	8	− 3.08	+1.30	−0.25	− 70.4	+12.2	+6.8	8.19950	+ 72	+128
	9	− 1.78	+0.99	−0.31	− 58.2	+17.5	+5.3	8.20022	+206	+134
	10	− 0.79	+0.68	−0.31	− 40.7	+21.2	+3.7	8.20228	+340	+134
	11	− 0.11		−0.32	− 19.5		+2.2	8.20568		+120
		s	s	s	"	"	"			
Juni	24	− 6.89	−1.27		+180.1	−18.8		8.23557	−439	
	25	− 8.16	−1.26	+0.01	+161.3	−25.7	−6.9	8.23118	−447	− 8
	26	− 9.42	−1.09	+0.17	+135.6	−31.3	−5.6	8.22671	−438	+ 9
	27	−10.51	−0.75	+0.34	+104.3	−35.2	−3.9	8.22233	−419	+ 19
	28	−11.26	−0.24	+0.51	+ 69.1	−36.5	−1.3	8.21814	−397	+ 22
	29	−11.50	+0.37	+0.61	+ 32.6	−34.8	+1.7	8.21417	−371	+ 26
	30	−11.13	+0.95	+0.58	− 2.2	−30.2	+4.6	8.21046	−339	+ 32
Juli	1	−10.18	+1.40	+0.45	− 32.4	−23.0	+7.2	8.20707	−298	+ 41
	2	− 8.78	+1.64	+0.24	− 55.4	−14.3	+8.7	8.20409	−248	+ 50
	3	− 7.14	+1.69	+0.05	− 69.7	− 5.2	+9.1	8.20161	−186	+ 62
	4	− 5.45	+1.58	−0.11	− 74.9	+ 3.2	+8.4	8.19975	−105	+ 81
	5	− 3.87	+1.38	−0.20	− 71.7	+10.6	+7.4	8.19870	− 9	+ 96
	6	− 2.49	+1.13	−0.25	− 61.1	+16.6	+6.0	8.19861	+100	+109
	7	− 1.36	+0.86	−0.27	− 44.5	+20.9	+4.3	8.19961	+221	+121
	8	− 0.50	+0.62	−0.24	− 23.6	+23.8	+2.9	8.20182	+346	+125
	9	+ 0.12	+0.40	−0.22	+ 0.2	+25.2	+1.4	8.20528	+469	+123
	10	+ 0.52	+0.20	−0.20	+ 25.4	+25.5	+0.3	8.20997	+576	+107
	11	+ 0.72		−0.17	+ 50.9		−0.6	8.21573		+ 81
		s	s	s	"	"	"			
Juli	23	−10.39	−1.29		+146.2	−30.9		8.23141	−592	
	24	−11.68	−0.86	+0.43	+115.3	−35.6	−4.7	8.22549	−561	+ 31
	25	−12.54	−0.29	+0.57	+ 79.7	−37.6	−2.0	8.21988	−509	+ 52
	26	−12.83	+0.35	+0.64	+ 42.1	−36.6	+1.0	8.21479	−445	+ 64
	27	−12.48	+0.95	+0.60	+ 5.5	−32.1	+4.5	8.21034	−376	+ 69
	28	−11.53	+1.42	+0.47	− 26.6	−25.2	+6.9	8.20658	−310	+ 66
	29	−10.11	+1.69	+0.27	− 51.8	−16.6	+8.6	8.20348	−244	+ 66
	30	− 8.42	+1.75	+0.06	− 68.4	− 7.7	+8.9	8.20104	−179	+ 65
	31	− 6.67	+1.64	−0.11	− 76.1	+ 1.1	+8.8	8.19925	−111	+ 68
Aug.	1	− 5.03	+1.43	−0.21	− 75.0	+ 8.9	+7.8	8.19814	− 39	+ 72
	2	− 3.60	+1.19	−0.24	− 66.1	+15.3	+6.4	8.19775	+ 41	+ 80
	3	− 2.41	+0.94	−0.25	− 50.8	+20.2	+4.9	8.19816	+130	+ 89
	4	− 1.47	+0.73	−0.21	− 30.6	+23.7	+3.5	8.19946	+228	+ 98
	5	− 0.74		−0.16	− 6.9		+2.2	8.20174		+107

Mondkrater Mösting A. 1939

Tag		0h Welt-Zeit								
		$\alpha_☾ - \alpha_k$			$\delta_☾ - \delta_k$			log sin p_k		
1939		s	s	s	″	″	″			
Aug.	5	− 0.74	+0.57	−0.16	− 6.9	+25.9	+2.2	8.20174	+335	+107
	6	− 0.17	+0.45	−0.12	+ 19.0	+26.6	+0.7	8.20509	+442	+107
	7	+ 0.28	+0.39	−0.06	+ 45.6	+26.1	−0.5	8.20951	+544	+102
	8	+ 0.67	+0.33	−0.06	+ 71.7	+24.4	−1.7	8.21495	+633	+ 89
	9	+ 1.00		−0.07	+ 96.1		−2.5	8.22128		+ 60
Aug.	22	−13.95	+0.09		+ 51.1	−38.3		8.21967	−594	
	23	−13.86	+0.81	+0.72	+ 12.8	−34.6	+3.7	8.21373	−506	+ 88
	24	−13.05	+1.38	+0.57	− 21.8	−28.0	+6.6	8.20867	−408	+ 98
	25	−11.67	+1.73	+0.35	− 49.8	−19.4	+8.6	8.20459	−309	+ 99
	26	− 9.94	+1.83	+0.10	− 69.2	−10.2	+9.2	8.20150	−214	+ 95
	27	− 8.11	+1.73	−0.10	− 79.4	− 1.1	+9.1	8.19936	−126	+ 88
	28	− 6.38	+1.52	−0.21	− 80.5	+ 7.1	+8.2	8.19810	− 46	+ 80
	29	− 4.86	+1.24	−0.28	− 73.4	+13.8	+6.7	8.19764	+ 29	+ 75
	30	− 3.62	+0.96	−0.28	− 59.6	+19.2	+5.4	8.19793	+ 99	+ 70
	31	− 2.66	+0.73	−0.23	− 40.4	+23.3	+4.1	8.19892	+170	+ 71
Sept.	1	− 1.93	+0.56	−0.17	− 17.1	+26.0	+2.7	8.20062	+242	+ 72
	2	− 1.37	+0.48	−0.08	+ 8.9	+27.3	+1.3	8.20304	+318	+ 76
	3	− 0.89	+0.48	0.00	+ 36.2	+27.4	+0.1	8.20622	+399	+ 81
	4	− 0.41	+0.52	+0.04	+ 63.6	+26.1	−1.3	8.21021	+478	+ 79
	5	+ 0.11	+0.59	+0.07	+ 89.7	+23.6	−2.5	8.21499	+552	+ 74
	6	+ 0.70	+0.59	0.00	+113.3	+19.9	−3.7	8.22051	+610	+ 58
	7	+ 1.29	+0.46	−0.13	+133.2	+15.6	−4.3	8.22661	+642	+ 32
	8	+ 1.75		−0.30	+148.8		−4.3	8.23303		− 11
Sept.	20	−13.99	+1.12		− 15.4	−31.0		8.21425	−552	
	21	−12.87	+1.61	+0.49	− 46.4	−22.7	+8.3	8.20873	−441	+111
	22	−11.26	+1.83	+0.22	− 69.1	−13.2	+9.5	8.20432	−319	+122
	23	− 9.43	+1.81	−0.02	− 82.3	− 3.6	+9.6	8.20113	−199	+120
	24	− 7.62	+1.62	−0.19	− 85.9	+ 4.9	+8.5	8.19914	− 87	+112
	25	− 6.00	+1.33	−0.29	− 81.0	+12.2	+7.3	8.19827	+ 13	+100
	26	− 4.67	+1.01	−0.32	− 68.8	+18.0	+5.8	8.19840	+ 99	+ 86
	27	− 3.66	+0.72	−0.29	− 50.8	+22.4	+4.4	8.19939	+170	+ 71
	28	− 2.94	+0.50	−0.22	− 28.4	+25.5	+3.1	8.20109	+230	+ 60
	29	− 2.44	+0.37	−0.13	− 2.9	+27.5	+2.0	8.20339	+280	+ 50
	30	− 2.07	+0.34	−0.03	+ 24.6	+28.1	+0.6	8.20619	+324	+ 44
Okt.	1	− 1.73	+0.41	+0.07	+ 52.7	+27.5	−0.6	8.20943	+366	+ 42
	2	− 1.32	+0.55	+0.14	+ 80.2	+25.5	−2.0	8.21309	+408	+ 42
	3	− 0.77	+0.69	+0.14	+105.7	+22.2	−3.3	8.21717	+446	+ 38
	4	− 0.08	+0.75	+0.06	+127.9	+17.7	−4.5	8.22163	+478	+ 32
	5	+ 0.67	+0.64	−0.11	+145.6	+12.5	−5.2	8.22641	+499	+ 21
	6	+ 1.31	+0.33	−0.31	+158.1	+ 7.4	−5.1	8.23140	+496	− 3
	7	+ 1.64		−0.51	+165.5		−4.2	8.23636		− 35
Okt.	20	−10.24	+1.77		− 81.6	− 6.8		8.20490	−325	
	21	− 8.47	+1.67	−0.10	− 88.4	+ 2.4	+9.2	8.20165	−191	+134
	22	− 6.80	+1.44	−0.23	− 86.0	+10.3	+7.9	8.19974	− 59	+132
	23	− 5.36		−0.32	− 75.7		+6.4	8.19915		+123

Tag		0h Welt-Zeit								
		$\alpha_{☾}-\alpha_k$			$\delta_{☾}-\delta_k$			log sin p_k		
1939		s	s	s	"	"	"			
Okt.	23	−5.36	+1.12	−0.32	−75.7	+16.7	+6.4	8.19915	+64	+123
	24	−4.24	+0.80	−0.32	−59.0	+21.4	+4.7	8.19979	+170	+106
	25	−3.44	+0.51	−0.29	−37.6	+24.8	+3.4	8.20149	+254	+84
	26	−2.93	+0.30	−0.21	−12.8	+27.0	+2.2	8.20403	+316	+62
	27	−2.63	+0.19	−0.11	+14.2	+28.0	+1.0	8.20719	+357	+41
	28	−2.44	+0.18	−0.01	+42.2	+28.0	0.0	8.21076	+375	+18
	29	−2.26	+0.28	+0.10	+70.2	+26.8	−1.2	8.21451	+379	+4
	30	−1.98	+0.45	+0.17	+97.0	+24.1	−2.7	8.21830	+373	−6
	31	−1.53	+0.60	+0.15	+121.1	+20.2	−3.9	8.22203	+360	−13
Nov.	1	−0.93	+0.64	+0.04	+141.3	+15.2	−5.0	8.22563	+344	−16
	2	−0.29	+0.53	−0.11	+156.5	+9.6	−5.6	8.22907	+327	−17
	3	+0.24	+0.23	−0.30	+166.1	+4.2	−5.4	8.23234	+303	−24
	4	+0.47	−0.22	−0.45	+170.3	−0.5	−4.7	8.23537	+267	−36
	5	+0.25		−0.52	+169.8		−3.9	8.23804		−50
Nov.	19	−5.73	+1.23		−78.4	+15.1		8.20022	−37	
	20	−4.50	+0.95	−0.28	−63.3	+20.4	+5.3	8.19985	+101	+138
	21	−3.55	+0.66	−0.29	−42.9	+24.1	+3.7	8.20086	+227	+126
	22	−2.89	+0.42	−0.24	−18.8	+26.6	+2.5	8.20313	+335	+108
	23	−2.47	+0.23	−0.19	+7.8	+27.7	+1.1	8.20648	+417	+82
	24	−2.24	+0.13	−0.10	+35.5	+27.7	0.0	8.21065	+464	+47
	25	−2.11	+0.10	−0.03	+63.2	+26.7	−1.0	8.21529	+477	+13
	26	−2.01	+0.16	+0.06	+89.9	+24.7	−2.0	8.22006	+459	−18
	27	−1.85	+0.25	+0.09	+114.6	+21.5	−3.2	8.22465	+411	−48
	28	−1.60	+0.31	+0.06	+136.1	+17.3	−4.2	8.22876	+343	−68
	29	−1.29	+0.27	−0.04	+153.4	+12.4	−4.9	8.23219	+264	−79
	30	−1.02	+0.09	−0.18	+165.8	+7.1	−5.3	8.23483	+184	−80
Dez.	1	−0.93	−0.19	−0.28	+172.9	+1.7	−5.4	8.23667	+111	−73
	2	−1.12	−0.55	−0.36	+174.6	−3.3	−5.0	8.23778	+46	−65
	3	−1.67	−0.94	−0.39	+171.3	−8.0	−4.7	8.23824	−12	−58
	4	−2.61	−1.30	−0.36	+163.3	−12.7	−4.7	8.23812	−64	−52
	5	−3.91		−0.28	+150.6		−4.9	8.23748		−54
Dez.	19	−2.81	+0.64		−21.7	+26.3		8.20092	+258	
	20	−2.17	+0.47	−0.17	+4.6	+27.7	+1.4	8.20350	+387	+129
	21	−1.70	+0.34	−0.13	+32.3	+27.7	0.0	8.20737	+493	+106
	22	−1.36	+0.27	−0.07	+60.0	+26.5	−1.2	8.21230	+567	+74
	23	−1.09	+0.22	−0.05	+86.5	+24.2	−2.3	8.21797	+600	+33
	24	−0.87	+0.18	−0.04	+110.7	+21.1	−3.1	8.22397	+586	−14
	25	−0.69	+0.09	−0.09	+131.8	+17.3	−3.8	8.22983	+523	−63
	26	−0.60	−0.06	−0.15	+149.1	+13.3	−4.0	8.23506	+418	−105
	27	−0.66	−0.29	−0.23	+162.4	+9.0	−4.3	8.23924	+283	−135
	28	−0.95	−0.58	−0.29	+171.4	+4.5	−4.5	8.24207	+135	−148
	29	−1.53	−0.89	−0.31	+175.9	−0.3	−4.8	8.24342	−9	−144
	30	−2.42	−1.18	−0.29	+175.6	−5.4	−5.1	8.24333	−131	−122
	31	−3.60		−0.22	+170.2		−5.6	8.24202		−97

Jupitertrabanten 1939

Verfinsterungen: E. Eintritte, A. Austritte (in Welt-Zeit)

TRABANT I

		h	m	
Jan.	0	20	53.5	A.
	2	15	22.3	A.
	4	9	51.0	A.
	6	4	19.8	A.
	7	22	48.5	A.
	9	17	17.3	A.
	11	11	46.1	A.
	13	6	14.8	A.
	15	0	43.6	A.
	16	19	12.3	A.
	18	13	41.1	A.
	20	8	9.8	A.
	22	2	38.5	A.
	23	21	7.3	A.
	25	15	36.0	A.
	27	10	4.8	A.
	29	4	33.5	A.
	30	23	2.2	A.
Febr.	1	17	30.9	A.
	3	11	59.6	A.
	5	6	28.3	A.
	7	0	57.1	A.
	8	19	25.8	A.
	10	13	54.5	A.
	12	8	23.2	A.
	14	2	51.9	A.
	15	21	20.6	A.
	17	15	49.3	A.

		h	m	
Mai	2	21	35.9	E.
	4	16	4.4	E.
	6	10	33.0	E.
	8	5	1.5	E.
	9	23	30.2	E.
	11	17	58.7	E.
	13	12	27.3	E.
	15	6	55.9	E.
	17	1	24.5	E.
	18	19	53.1	E.
	20	14	21.6	E.
	22	8	50.2	E.
	24	3	18.8	E.
	25	21	47.3	E.
	27	16	15.9	E.
	29	10	44.4	E.

TRABANT I

		h	m	
Mai	31	5	13.1	E.
Juni	1	23	41.6	E.
	3	18	10.2	E.
	5	12	38.7	E.
	7	7	7.3	E.
	9	1	35.9	E.
	10	20	4.5	E.
	12	14	33.0	E.
	14	9	1.6	E.
	16	3	30.1	E.
	17	21	58.7	E.
	19	16	27.2	E.
	21	10	55.8	E.
	23	5	24.4	E.
	24	23	53.0	E.
	26	18	21.5	E.
	28	12	50.1	E.
	30	7	18.6	E.
Juli	2	1	47.2	E.
	3	20	15.8	E.
	5	14	44.4	E.
	7	9	12.9	E.
	9	3	41.5	E.
	10	22	10.1	E.
	12	16	38.7	E.
	14	11	7.2	E.
	16	5	35.9	E.
	18	0	4.4	E.
	19	18	33.0	E.
	21	13	1.5	E.
	23	7	30.2	E.
	25	1	58.7	E.
	26	20	27.4	E.
	28	14	55.9	E.
	30	9	24.6	E.
Aug.	1	3	53.1	E.
	2	22	21.8	E.
	4	16	50.3	E.
	6	11	19.0	E.
	8	5	47.5	E.
	10	0	16.2	E.
	11	18	44.8	E.
	13	13	13.5	E.
	15	7	42.1	E.
	17	2	10.8	E.
	18	20	39.3	E.

TRABANT I

		h	m	
Aug.	20	15	8.0	E.
	22	9	36.6	E.
	24	4	5.3	E.
	25	22	34.0	E.
	27	17	2.7	E.
	29	11	31.3	E.
	31	6	0.0	E.
Sept.	2	0	28.6	E.
	3	18	57.4	E.
	5	13	26.0	E.
	7	7	54.7	E.
	9	2	23.4	E.
	10	20	52.2	E.
	12	15	20.9	E.
	14	9	49.6	E.
	16	4	18.3	E.
	17	22	47.1	E.
	19	17	15.8	E.
	21	11	44.6	E.
	23	6	13.3	E.
	25	0	42.1	E.
	26	19	10.8	E.
	28	15	53.5	A.
	30	10	22.2	A.
Okt.	2	4	51.0	A.
	3	23	19.7	A.
	5	17	48.5	A.
	7	12	17.2	A.
	9	6	46.0	A.
	11	1	14.8	A.
	12	19	43.6	A.
	14	14	12.3	A.
	16	8	41.2	A.
	18	3	9.9	A.
	19	21	38.8	A.
	21	16	7.5	A.
	23	10	36.4	A.
	25	5	5.2	A.
	26	23	34.1	A.
	28	18	2.8	A.
	30	12	31.7	A.
Nov.	1	7	0.5	A.
	3	1	29.3	A.
	4	19	58.1	A.
	6	14	27.0	A.
	8	8	55.8	A.

TRABANT I

		h	m	
Nov.	10	3	24.7	A.
	11	21	53.5	A.
	13	16	22.4	A.
	15	10	51.3	A.
	17	5	20.2	A.
	18	23	49.0	A.
	20	18	17.9	A.
	22	12	46.8	A.
	24	7	15.6	A.
	26	1	44.5	A.
	27	20	13.4	A.
	29	14	42.2	A.
Dez.	1	9	11.1	A.
	3	3	40.0	A.
	4	22	8.9	A.
	6	16	37.7	A.
	8	11	6.6	A.
	10	5	35.5	A.
	12	0	4.4	A.
	13	18	33.2	A.
	15	13	2.1	A.
	17	7	31.0	A.
	19	1	59.9	A.
	20	20	28.7	A.
	22	14	57.6	A.
	24	9	26.4	A.
	26	3	55.3	A.
	27	22	24.2	A.
	29	16	53.1	A.
	31	11	21.9	A.

TRABANT II

		h	m	
Jan.	2	17	48.2	A.
	6	7	7.0	A.
	9	20	26.7	A.
	13	9	45.5	A.
	16	23	5.1	A.
	20	12	23.8	A.
	24	1	43.3	A.
	27	15	2.0	A.
	31	4	21.4	A.
Febr.	3	17	40.0	A.
	7	6	59.3	A.
	10	20	17.8	A.

Verfinsterungen: E. Eintritte, A. Austritte (in Welt-Zeit)

TRABANT II

		h	m	
Febr.	14	9	37.0	A.
	17	22	55.4	A.
Mai	3	11	32.1	E.
	7	0	49.8	E.
	10	14	7.5	E.
	14	3	25.0	E.
	17	16	42.6	E.
	21	6	0.1	E.
	24	19	17.5	E.
	28	8	34.9	E.
	31	21	52.3	E.
Juni	4	11	9.7	E.
	8	0	27.0	E.
	11	13	44.3	E.
	15	3	1.5	E.
	18	16	18.7	E.
	22	5	36.0	E.
	25	18	53.2	E.
	29	8	10.4	E.
Juli	2	21	27.5	E.
	6	10	44.7	E.
	10	0	1.9	E.
	13	13	19.0	E.
	17	2	36.2	E.
	20	15	53.3	E.
	24	5	10.5	E.
	27	18	27.7	E.
	31	7	44.9	E.
Aug.	3	21	2.1	E.
	7	10	19.3	E.
	10	23	36.6	E.
	14	12	53.9	E.
	18	2	11.2	E.
	21	15	28.6	E.
	25	4	46.0	E.
	28	18	3.4	E.
Sept.	1	7	20.9	E.
	4	20	38.5	E.
	8	9	56.1	E.
	11	23	13.7	E.
	15	12	31.4	E.
	19	1	49.2	E.
	22	15	7.0	E.
	26	4	24.9	E.

TRABANT II

		h	m	
Sept.	29	20	22.5	A.
Okt.	3	9	40.6	A.
	6	22	58.6	A.
	10	12	16.7	A.
	14	1	34.8	A.
	17	14	53.2	A.
	21	4	11.4	A.
	24	17	29.9	A.
	28	6	48.3	A.
	31	20	6.9	A.
Nov.	4	9	25.4	A.
	7	22	44.2	A.
	11	12	2.7	A.
	15	1	21.7	A.
	18	14	40.2	A.
	22	3	59.4	A.
	25	17	18.1	A.
	29	6	37.4	A.
Dez.	2	19	56.1	A.
	6	9	15.5	A.
	9	22	34.4	A.
	13	11	53.9	A.
	17	1	12.7	A.
	20	14	32.3	A.
	24	3	51.2	A.
	27	17	10.9	A.
	31	6	29.9	A.

TRABANT III

		h	m	
Jan.	4	13	49.6	E.
	4	17	13.5	A.
	11	17	51.4	E.
	11	21	14.7	A.
	19	1	15.7	A.
	26	5	17.2	A.
Febr.	2	9	18.0	A.
	9	13	19.1	A.
	16	17	19.5	A.
Mai	6	10	15.6	E.
	6	13	24.6	A.
	13	14	16.6	E.
	13	17	24.5	A.

TRABANT III

		h	m	
Mai	20	18	17.6	E.
	20	21	24.5	A.
	27	22	18.4	E.
	28	1	24.3	A.
Juni	4	2	19.2	E.
	4	5	24.0	A.
	11	6	20.4	E.
	11	9	24.2	A.
	18	10	21.4	E.
	18	13	24.2	A.
	25	14	23.0	E.
	25	17	24.8	A.
Juli	2	18	24.0	E.
	2	21	24.6	A.
	9	22	25.0	E.
	10	1	24.5	A.
	17	2	25.9	E.
	17	5	24.2	A.
	24	6	26.9	E.
	24	9	24.1	A.
	31	10	28.2	E.
	31	13	24.4	A.
Aug.	7	14	29.5	E.
	7	17	24.5	A.
	14	18	31.4	E.
	14	21	25.3	A.
	21	22	32.7	E.
	22	1	25.4	A.
	29	2	34.1	E.
	29	5	25.6	A.
Sept.	5	6	35.4	E.
	12	10	36.9	E.
	19	14	38.9	E.
	26	18	40.9	E.
	26	21	27.7	A.
Okt.	4	1	29.1	A.
	11	5	29.9	A.
	18	9	30.9	A.
	25	10	49.6	E.
	25	13	31.8	A.
Nov.	1	14	52.0	E.
	1	17	32.9	A.
	8	18	54.8	E.
	8	21	34.5	A.
	15	22	57.5	E.
	16	1	36.0	A.

TRABANT III

		h	m	
Nov.	23	3	0.7	E.
	23	5	38.1	A.
	30	7	3.2	E.
	30	9	39.4	A.
Dez.	7	11	5.9	E.
	7	13	40.9	A.
	14	15	8.2	E.
	14	17	42.2	A.
	21	19	10.9	E.
	21	21	43.6	A.
	28	23	14.0	E.
	29	1	45.5	A.

TRABANT IV

		h	m	
Jan.	13	17	34.1	E.
	13	21	44.2	A.
	30	11	50.4	E.
	30	15	54.0	A.
Febr.	16	10	3.3	A.
Mai	11	1	28.1	E.
	11	4	41.0	A.
	27	19	45.2	E.
	27	22	46.7	A.
Juni	13	14	1.9	E.
	13	16	51.7	A.
	30	8	19.6	E.
	30	10	55.9	A.
Juli	17	2	38.5	E.
	17	4	59.6	A.
Aug.	2	20	58.2	E.
	2	23	2.7	A.
	19	15	20.7	E.
	19	17	4.6	A.
Sept.	5	9	45.3	E.
	5	11	4.5	A.

Saturn und Saturnsring 1939

0^h Welt-Zeit	α	β	p_α	a	b	U'	B'	P'
1939	″	″	″	″	″	°	°	°
Jan. —1	17.98	16.15	+0.05	40.50	— 5.81	206.928	—10.849	+24.829
+7	17.72	15.92	0.05	39.93	5.84	207.184	10.964	24.768
15	17.48	15.70	0.05	39.38	5.89	207.441	11.079	24.707
23	17.25	15.50	0.04	38.86	5.97	207.698	11.194	24.646
31	17.04	15.31	0.04	38.37	6.08	207.955	11.308	24.584
Febr. 8	16.84	15.14	+0.03	37.93	— 6.21	208.213	—11.423	+24.521
16	16.66	14.98	0.03	37.54	6.37	208.471	11.537	24.458
24	16.51	14.85	0.02	37.19	6.55	208.729	11.651	24.394
März 4	16.38	14.73	0.01	36.89	6.74	208.987	11.765	24.329
12	16.27	14.64	0.01	36.65	6.95	209.246	11.879	24.264
20	16.19	14.57	+0.01	36.47	— 7.18	209.506	—11.993	+24.198
28	16.13	14.52	0.00	36.34	7.41	209.766	12.106	24.132
April 5	16.10	14.50	0.00	36.26	7.65	210.026	12.219	24.065
13	16.09	14.50	0.00	36.24	7.90	210.287	12.332	23.997
21	16.11	14.52	0.00	36.28	8.16	210.548	12.445	23.929
29	16.15	14.56	0.00	36.37	— 8.42	210.809	—12.557	+23.861
Mai 7	16.21	14.62	—0.01	36.51	8.69	211.071	12.669	23.792
15	16.30	14.71	0.01	36.71	8.96	211.333	12.782	23.722
23	16.41	14.81	0.02	36.96	9.24	211.595	12.894	23.652
31	16.55	14.94	0.02	37.26	9.52	211.857	13.006	23.581
Juni 8	16.70	15.08	0.03	37.61	— 9.79	212.120	—13.117	+23.509
16	16.88	15.25	—0.03	38.01	10.06	212.383	13.229	23.437
24	17.07	15.43	0.04	38.45	10.32	212.647	13.340	23.364
Juli 2	17.29	15.63	0.04	38.93	10.57	212.911	13.451	23.291
10	17.52	15.84	0.05	39.45	10.82	213.176	13.561	23.217
18	17.76	16.06	0.05	40.00	—11.05	213.441	—13.672	+23.142
26	18.01	16.29	—0.05	40.58	11.27	213.706	13.782	23.067
Aug. 3	18.28	16.52	0.05	41.17	11.46	213.971	13.892	22.992
11	18.54	16.76	0.05	41.76	11.63	214.236	14.001	22.916
19	18.80	17.00	0.05	42.34	11.76	214.502	14.111	22.839
27	19.05	17.23	0.04	42.91	—11.86	214.769	—14.220	+22.761
Sept. 4	19.28	17.44	—0.03	43.44	11.92	215.036	14.329	22.683
12	19.50	17.63	0.03	43.93	11.95	215.303	14.438	22.604
20	19.69	17.79	0.02	44.35	11.93	215.571	14.547	22.525
28	19.84	17.93	0.01	44.70	11.88	215.839	14.655	22.445
Okt. 6	19.96	18.03	—0.01	44.96	—11.78	216.108	—14.763	+22.365
14	20.03	18.09	0.00	45.12	11.64	216.377	14.870	22.284
22	20.05	18.10	0.00	45.17	11.47	216.646	14.978	22.202
30	20.03	18.08	0.00	45.12	11.28	216.916	15.085	22.120
Nov. 7	19.96	18.01	+0.01	44.96	11.06	217.186	15.192	22.038
15	19.85	17.91	0.01	44.70	—10.85	217.456	—15.298	+21.955
23	19.69	17.77	0.02	44.35	10.64	217.727	15.405	21.871
Dez. 1	19.50	17.59	0.03	43.92	10.43	217.999	15.511	21.786
9	19.28	17.39	0.03	43.43	10.24	218.271	15.617	21.701
17	19.04	17.17	0.04	42.89	10.07	218.543	15.722	21.615
25	18.78	16.94	0.04	42.31	9.93	218.816	15.828	21.529
33	18.52	16.70	+0.05	41.72	— 9.83	219.089	—15.933	+21.442

0h Welt-Zeit		U	B	P	log (Δ)/Δ	0h Welt-Zeit		U	B	P	log (Δ)/Δ
1939		°	°	°		1939		°	°	°	
Jan.	−1	243.264	− 8.244	+3.028	0.01252	Juli	2	260.277	−15.764	+1.149	9.99542
	+3	243.370	8.315	3.017	0.00942		6	260.539	15.847	1.119	9.99825
	7	243.500	8.397	3.003	0.00635		10	260.780	15.921	1.091	0.00116
	11	243.656	8.491	2.987	0.00331		14	260.998	15.986	1.066	0.00414
	15	243.837	8.596	2.968	0.00032		18	261.192	16.041	1.043	0.00716
	19	244.041	− 8.712	+2.947	9.99739		22	261.362	−16.086	+1.023	0.01023
	23	244.268	8.838	2.923	9.99453		26	261.507	16.122	1.006	0.01333
	27	244.517	8.974	2.897	9.99176		30	261.626	16.148	0.992	0.01645
	31	244.788	9.119	2.869	9.98909	Aug.	3	261.720	16.164	0.981	0.01957
Febr.	4	245.078	9.273	2.838	9.98651		7	261.787	16.170	0.974	0.02268
	8	245.388	− 9.434	+2.805	9.98405		11	261.828	−16.166	+0.969	0.02577
	12	245.716	9.603	2.770	9.98171		15	261.841	16.152	0.968	0.02883
	16	246.062	9.778	2.734	9.97950		19	261.826	16.128	0.969	0.03183
	20	246.424	9.959	2.695	9.97741		23	261.784	16.094	0.974	0.03476
	24	246.801	10.146	2.655	9.97547		27	261.716	16.051	0.981	0.03760
	28	247.192	−10.338	+2.613	9.97367		31	261.622	−15.999	+0.992	0.04034
März	4	247.595	10.534	2.570	9.97202	Sept.	4	261.502	15.938	1.006	0.04297
	8	248.010	10.734	2.525	9.97052		8	261.357	15.868	1.023	0.04546
	12	248.436	10.936	2.479	9.96918		12	261.189	15.790	1.042	0.04781
	16	248.872	11.141	2.432	9.96799		16	260.997	15.704	1.064	0.04999
	20	249.316	−11.348	+2.384	9.96697		20	260.785	−15.611	+1.089	0.05198
	24	249.768	11.556	2.335	9.96610		24	260.554	15.512	1.116	0.05378
	28	250.226	11.765	2.285	9.96540		28	260.305	15.407	1.145	0.05537
Apr.	1	250.690	11.974	2.234	9.96487	Okt.	2	260.040	15.297	1.175	0.05674
	5	251.157	12.182	2.183	9.96451		6	259.763	15.184	1.207	0.05788
	9	251.627	−12.390	+2.131	9.96430		10	259.475	−15.067	+1.241	0.05878
	13	252.099	12.596	2.078	9.96427		14	259.178	14.948	1.275	0.05943
	17	252.572	12.800	2.025	9.96440		18	258.875	14.828	1.310	0.05982
	21	253.045	13.002	1.973	9.96469		22	258.570	14.708	1.345	0.05995
	25	253.516	13.201	1.920	9.96515		26	258.264	14.590	1.380	0.05982
	29	253.986	−13.397	+1.868	9.96578		30	257.961	−14.473	+1.415	0.05944
Mai	3	254.452	13.589	1.816	9.96656	Nov.	3	257.663	14.359	1.449	0.05880
	7	254.913	13.777	1.764	9.96750		7	257.372	14.250	1.482	0.05791
	11	255.368	13.960	1.713	9.96860		11	257.093	14.146	1.514	0.05677
	15	255.817	14.139	1.662	9.96985		15	256.824	14.048	1.545	0.05539
	19	256.258	−14.312	+1.612	9.97126		19	256.572	−13.958	+1.573	0.05378
	23	256.690	14.479	1.562	9.97281		23	256.336	13.875	1.600	0.05197
	27	257.112	14.640	1.514	9.97451		27	256.120	13.801	1.625	0.04995
	31	257.523	14.795	1.467	9.97634	Dez.	1	255.924	13.737	1.647	0.04774
Juni	4	257.921	14.943	1.421	9.97832		5	255.751	13.683	1.667	0.04537
	8	258.306	−15.084	+1.377	9.98041		9	255.602	−13.640	+1.684	0.04283
	12	258.677	15.217	1.335	9.98263		13	255.479	13.608	1.698	0.04016
	16	259.033	15.343	1.294	9.98498		17	255.381	13.587	1.709	0.03737
	20	259.372	15.461	1.255	9.98744		21	255.311	13.578	1.717	0.03448
	24	259.693	15.571	1.217	9.99000		25	255.268	13.581	1.722	0.03151
	28	259.995	15.672	1.182	9.99267		29	255.253	13.596	1.724	0.02847
Juli	2	260.277	−15.764	+1.149	9.99542		33	255.265	−13.622	+1.722	0.02538

Saturnstrabanten 1939

0ʰ Welt-Zeit		MIMAS L	MIMAS M	ENCELADUS L	ENCELADUS M	TETHYS L	DIONE L	DIONE M	RHEA L	RHEA M
1939		°	°	°	°	°	°	°	°	°
Jan.	−9	24.386	227.90	238.736	40.0	318.819	39.435	263.9	323.089	154.9
	+7	16.117	203.61	122.448	278.3	129.992	343.993	207.1	158.129	350.1
	23	7.848	179.33	6.159	156.6	301.166	288.550	150.4	353.168	185.2
Febr.	8	359.580	155.05	249.869	34.9	112.339	233.108	93.6	188.208	20.3
Juni	16	293.441	320.79	39.510	141.3	41.727	149.572	359.3	308.524	141.4
Juli	2	285.174	296.52	283.211	19.6	212.901	94.130	302.5	143.563	336.5
	18	276.908	272.23	166.910	257.9	24.074	38.688	245.7	338.603	171.6
Aug.	3	268.642	247.96	50.609	136.2	195.248	343.246	188.9	173.642	6.8
	19	260.376	223.68	294.307	14.5	6.421	287.805	132.1	8.682	201.9
Sept.	4	252.110	199.40	178.004	252.8	177.595	232.363	75.3	203.721	37.0
	20	243.844	175.12	61.701	131.1	348.768	176.922	18.5	38.761	232.2
Okt.	6	235.579	150.83	305.397	9.4	159.942	121.480	321.7	233.800	67.3
	22	227.314	126.56	189.092	247.7	331.115	66.039	264.9	68.840	262.4
Nov.	7	219.049	102.28	72.787	126.0	142.288	10.597	208.2	263.879	97.6
	23	210.785	78.00	316.481	4.3	313.462	315.156	151.4	98.919	292.7
Dez.	9	202.520	53.72	200.175	242.5	124.635	259.715	94.6	293.958	127.8
	25	194.256	29.45	83.869	120.8	295.809	204.273	37.9	128.998	322.9
	41	185.993	5.17	327.563	359.1	106.982	148.832	341.1	324.038	158.1

0ʰ Welt-Zeit		TITAN L	TITAN M	HYPERION L	HYPERION M	HYPERION e	HYPERION log a	JAPETUS L	JAPETUS M
1939		°	°	°	°			°	°
Jan.	−9	41.184	222.63	56.427	134.11	0.09658	2.33255	174.966	221.74
	+7	42.416	223.84	325.722	44.24	0.09692	2.33256	247.575	294.34
	23	43.649	225.05	235.037	314.38	0.09718	2.33253	320.185	6.94
Febr.	8	44.882	226.26	144.406	224.57	0.09734	2.33247	32.794	79.54
Juni	16	54.743	235.94	144.647	231.53	0.09621	2.33099	253.669	300.36
Juli	2	55.976	237.15	55.600	143.37	0.09594	2.33077	326.279	12.96
	18	57.209	238.36	326.772	55.42	0.09571	2.33055	38.888	85.57
Aug.	3	58.441	239.56	238.152	327.69	0.09552	2.33032	111.498	158.17
	19	59.674	240.77	149.721	240.15	0.09538	2.33012	184.107	230.77
Sept.	4	60.907	241.98	61.459	152.78	0.09530	2.32996	256.717	303.37
	20	62.139	243.19	333.343	65.57	0.09531	2.32981	329.326	15.97
Okt.	6	63.372	244.40	245.344	338.49	0.09540	2.32969	41.935	88.57
	22	64.605	245.61	157.429	251.49	0.09557	2.32962	114.545	161.18
Nov.	7	65.837	246.82	69.565	164.54	0.09584	2.32957	187.154	233.78
	23	67.070	248.03	341.717	77.60	0.09621	2.32956	259.764	306.38
Dez.	9	68.303	249.24	253.852	350.63	0.09669	2.32959	332.373	18.98
	25	69.535	250.45	165.933	263.62	0.09725	2.32965	44.983	91.58
	41	70.768	251.66	77.927	176.51	0.09791	2.32975	117.592	164.19

Bewegung der mittleren Länge L und der mittleren Anomalie M

Zeit	Mimas		Enceladus		Tethys	Dione		Rhea		Titan		Japetus	
	L	M	L	M	L	L	M	L	M	L	M	L	M
d	°	°	°	°	°	°	°	°	°	°	°	°	°
1	21.9834	20.982	262.7312	262.39	190.6983	131.5349	131.45	79.6900	79.69	22.5771	22.576	4.5381	4.538
2	43.9668	41.965	165.4624	164.79	21.3967	263.0698	262.90	159.3799	159.39	45.1541	45.151	9.0762	9.075
3	65.9501	62.947	68.1937	67.18	212.0950	34.6046	34.35	239.0699	239.08	67.7312	67.727	13.6143	13.612
4	87.9335	83.930	330.9249	329.58	42.7934	166.1395	165.80	318.7599	318.78	90.3082	90.302	18.1524	18.150
5	109.9169	104.912	233.6561	231.97	233.4917	297.6744	297.25	38.4498	38.47	112.8853	112.878	22.6905	22.688
6	131.9003	125.895	136.3873	134.36	64.1901	69.2093	68.70	118.1398	118.16	135.4624	135.454	27.2286	27.225
7	153.8836	146.877	39.1185	36.76	254.8884	200.7441	200.15	197.8298	197.86	158.0394	158.029	31.7667	31.762
8	175.8670	167.860	301.8497	299.15	85.5867	332.2790	331.60	277.5197	277.55	180.6165	180.605	36.3048	36.300
9	197.8504	188.842	204.5810	201.54	276.2851	103.8139	103.05	357.2097	357.24	203.1936	203.181	40.8428	40.838
10	219.8338	209.825	107.3122	103.94	106.9834	235.3488	234.50	76.8997	76.94	225.7706	225.756	45.3809	45.375
11	241.8171	230.807	10.0434	6.33	297.6818	6.8836	5.95	156.5897	156.63	248.3477	248.332	49.9190	49.912
12	263.8005	251.790	272.7746	268.72	128.3801	138.4185	137.40	236.2796	236.32	270.9247	270.908	54.4571	54.450
13	285.7839	272.772	175.5058	171.12	319.0785	269.9534	268.85	315.9696	316.02	293.5018	293.483	58.9952	58.988
14	307.7673	293.755	78.2371	73.51	149.7768	41.4883	40.30	35.6596	35.71	316.0789	316.059	63.5333	63.525
15	329.7506	314.737	340.9683	335.91	340.4752	173.0231	171.75	115.3495	115.41	338.6559	338.634	68.0714	68.062
16	351.7340	335.720	243.6995	238.30	171.1735	304.5580	303.20	195.0395	195.10	361.2330	361.210	72.6095	72.600
d	°	°	°	°	°	°	°	°	°	°	°	°	°
0.1	38.1983	38.098	26.2731	26.24	19.0698	13.1535	13.14	7.9690	7.97	2.2577	2.258	0.4538	0.454
0.2	76.3967	76.196	52.5462	52.48	38.1397	26.3070	26.29	15.9380	15.94	4.5154	4.515	0.9076	0.908
0.3	114.5950	114.295	78.8194	78.72	57.2095	39.4605	39.44	23.9070	23.91	6.7731	6.773	1.3614	1.361
0.4	152.7934	152.393	105.0925	104.96	76.2793	52.6140	52.58	31.8760	31.88	9.0308	9.030	1.8152	1.815
0.5	190.9917	190.491	131.3656	131.20	95.3492	65.7674	65.72	39.8450	39.85	11.2885	11.288	2.2690	2.269
0.6	229.1900	228.589	157.6387	157.44	114.4190	78.9209	78.87	47.8140	47.82	13.5462	13.545	2.7229	2.722
0.7	267.3884	266.688	183.9118	183.68	133.4888	92.0744	92.02	55.7830	55.79	15.8039	15.803	3.1767	3.176
0.8	305.5867	304.786	210.1850	209.92	152.5587	105.2279	105.16	63.7520	63.75	18.0616	18.060	3.6305	3.630
0.9	343.7850	342.884	236.4581	236.15	171.6285	118.3814	118.30	71.7210	71.72	20.3194	20.318	4.0843	4.084
1.0	381.9834	380.982	262.7312	262.39	190.6983	131.5349	131.45	79.6900	79.69	22.5771	22.576	4.5381	4.538
d	°	°	°	°	°	°	°	°	°	°	°	°	°
0.01	3.8198	3.810	2.6273	2.62	1.9070	1.3153	1.31	0.7969	0.80	0.2258	0.226	0.0454	0.045
0.02	7.6397	7.620	5.2546	5.25	3.8140	2.6307	2.63	1.5938	1.59	0.4515	0.452	0.0908	0.091
0.03	11.4595	11.429	7.8819	7.87	5.7209	3.9460	3.94	2.3907	2.39	0.6773	0.677	0.1361	0.136
0.04	15.2793	15.239	10.5092	10.50	7.6279	5.2614	5.26	3.1876	3.19	0.9031	0.903	0.1815	0.182
0.05	19.0992	19.049	13.1366	13.12	9.5349	6.5767	6.57	3.9845	3.98	1.1289	1.129	0.2269	0.227
0.06	22.9190	22.859	15.7639	15.74	11.4419	7.8921	7.89	4.7814	4.78	1.3546	1.355	0.2723	0.272
0.07	26.7388	26.669	18.3912	18.37	13.3489	9.2074	9.20	5.5783	5.58	1.5804	1.580	0.3177	0.318
0.08	30.5587	30.479	21.0185	20.99	15.2559	10.5228	10.52	6.3752	6.38	1.8062	1.806	0.3630	0.363
0.09	34.3785	34.288	23.6458	23.62	17.1628	11.8381	11.83	7.1721	7.17	2.0319	2.032	0.4084	0.408
0.10	38.1983	38.098	26.2731	26.24	19.0698	13.1535	13.14	7.9690	7.97	2.2577	2.258	0.4538	0.454
d	°	°	°	°	°	°	°	°	°	°	°	°	°
0.001	0.3820	0.381	0.2627	0.26	0.1907	0.1315	0.13	0.0797	0.08	0.0226	0.023	0.0045	0.005
0.002	0.7640	0.762	0.5255	0.52	0.3814	0.2631	0.26	0.1594	0.16	0.0452	0.045	0.0091	0.009
0.003	1.1460	1.143	0.7882	0.79	0.5721	0.3946	0.39	0.2391	0.24	0.0677	0.068	0.0136	0.014
0.004	1.5279	1.524	1.0509	1.05	0.7628	0.5261	0.53	0.3188	0.32	0.0903	0.090	0.0182	0.018
0.005	1.9099	1.905	1.3137	1.31	0.9535	0.6577	0.66	0.3984	0.40	0.1129	0.113	0.0227	0.023
0.006	2.2919	2.286	1.5764	1.57	1.1442	0.7892	0.79	0.4781	0.48	0.1355	0.135	0.0272	0.027
0.007	2.6739	2.667	1.8391	1.84	1.3349	0.9207	0.92	0.5578	0.56	0.1580	0.158	0.0318	0.032
0.008	3.0559	3.048	2.1018	2.10	1.5256	1.0523	1.05	0.6375	0.64	0.1806	0.181	0.0363	0.036
0.009	3.4379	3.429	2.3646	2.36	1.7163	1.1838	1.18	0.7172	0.72	0.2032	0.203	0.0408	0.041
0.010	3.8198	3.810	2.6273	2.62	1.9070	1.3153	1.31	0.7969	0.80	0.2258	0.226	0.0454	0.045

Saturnstrabanten 1939

0ʰ Welt-Zeit	ϑ					γ	N	J	ω
	Mimas	Encel.	Tethys	Dione	Rhea	Rhea	Saturnsring		
1939	°	°	°	°	°	′	°	°	°
Jan. −9	129.3	252.4	351.1	332.8	237.1	22.28	127.953	6.738	41.820
+7	113.3	245.7	348.0	331.4	236.7	22.28	127.955	6.738	41.819
23	97.3	239.0	344.8	330.1	236.3	22.29	127.957	6.738	41.817
Febr. 8	81.3	232.4	341.6	328.7	235.9	22.29	127.958	6.737	41.816
24	65.3	225.7	338.5	327.3	235.5	22.29	127.960	6.737	41.815
März 12	49.3	219.0	335.3	326.0	235.1	22.30	127.962	6.737	41.814
28	33.3	212.3	332.1	324.6	234.7	22.30	127.964	6.737	41.812
April 13	17.3	205.6	329.0	323.3	234.3	22.31	127.966	6.737	41.811
29	1.3	198.9	325.8	321.9	233.9	22.31	127.968	6.736	41.810
Mai 15	345.3	192.2	322.6	320.5	233.5	22.31	127.969	6.736	41.808
31	329.3	185.5	319.5	319.2	233.1	22.32	127.971	6.736	41.807
Juni 16	313.3	178.8	316.3	317.8	232.7	22.32	127.973	6.736	41.806
Juli 2	297.3	172.1	313.1	316.5	232.2	22.32	127.975	6.736	41.805
18	281.3	165.4	310.0	315.1	231.8	22.33	127.977	6.735	41.803
Aug. 3	265.3	158.8	306.8	313.7	231.4	22.33	127.979	6.735	41.802
19	249.3	152.1	303.6	312.4	231.0	22.33	127.980	6.735	41.801
Sept. 4	233.3	145.4	300.5	311.0	230.6	22.33	127.982	6.735	41.800
20	217.3	138.7	297.3	309.7	230.2	22.34	127.984	6.735	41.798
Okt. 6	201.3	132.0	294.1	308.3	229.8	22.34	127.986	6.735	41.797
22	185.3	125.3	291.0	306.9	229.4	22.34	127.988	6.734	41.796
Nov. 7	169.3	118.6	287.8	305.6	229.0	22.34	127.990	6.734	41.794
23	153.3	111.9	284.6	304.2	228.6	22.35	127.991	6.734	41.793
Dez. 9	137.3	105.2	281.5	302.9	228.2	22.35	127.993	6.734	41.792
25	121.3	98.5	278.3	301.5	227.8	22.35	127.995	6.734	41.791
41	105.3	91.8	275.1	300.1	227.4	22.35	127.997	6.733	41.789

$\log \frac{1}{1+\zeta}$, in Einheiten der 5. Dezimale

u − U		Mimas	Encel.	Tethys	Dione	Rhea	u − U	
0°	360°	−6+	−7+	−9+	−11+	−16+	180°	180°
10	350	−6+	−7+	−9+	−11+	−16+	170	190
20	340	−5+	−7+	−8+	−11+	−15+	160	200
30	330	−5+	−6+	−8+	−10+	−14+	150	210
40	320	−4+	−6+	−7+	− 9+	−12+	140	220
50	310	−3+	−5+	−6+	− 8+	−10+	130	230
60	300	−3+	−4+	−4+	− 6+	− 8+	120	240
70	290	−2+	−3+	−3+	− 4+	− 6+	110	250
80	280	−1+	−1+	−2+	− 2+	− 3+	100	260
90	270	0	0	0	0	0	90	270

Saturnstrabanten 1939

0h Welt-Zeit	TITAN			HYPERION			JAPETUS		
	U	*B*	*P*	*U*	*B*	*P*	*U*	*B*	*P*
1939	°	°	°	°	°	°	°	°	°
Jan. −1	247.075	− 8.388	+2.604	242.028	− 8.203	+3.170	322.100	−11.232	−11.335
+7	247.312	8.539	2.578	242.268	8.356	3.145	322.371	11.322	11.378
15	247.652	8.736	2.542	242.607	8.557	3.111	322.752	11.432	11.439
23	248.087	8.975	2.496	243.040	8.801	3.066	323.238	11.560	11.515
31	248.610	9.253	2.439	243.563	9.084	3.011	323.818	11.704	11.606
Febr. 8	249.214	− 9.563	+2.374	244.167	− 9.400	+2.948	324.486	−11.861	−11.709
16	249.892	9.902	2.301	244.844	9.747	2.877	325.233	12.026	11.822
24	250.635	10.265	2.220	245.584	10.118	2.799	326.050	12.200	11.945
März 4	251.434	10.647	2.133	246.381	10.508	2.714	326.925	12.378	12.073
12	252.279	11.043	2.040	247.224	10.913	2.624	327.850	12.557	12.207
20	253.164	−11.449	+1.942	248.107	−11.327	+2.529	328.815	−12.736	−12.343
28	254.079	11.859	1.840	249.019	11.747	2.430	329.810	12.912	12.481
April 5	255.014	12.270	1.736	249.952	12.167	2.328	330.824	13.083	12.618
13	255.961	12.676	1.630	250.897	12.584	2.224	331.848	13.248	12.754
21	256.912	13.075	1.522	251.845	12.993	2.119	332.874	13.404	12.885
29	257.858	−13.463	+1.415	252.789	−13.391	+2.014	333.890	−13.550	−13.012
Mai 7	258.789	13.836	1.309	253.718	13.773	1.910	334.888	13.686	13.134
15	259.697	14.191	1.205	254.625	14.138	1.807	335.858	13.809	13.249
23	260.575	14.525	1.104	255.501	14.481	1.708	336.792	13.920	13.356
31	261.411	14.834	1.008	256.336	14.799	1.613	337.680	14.018	13.455
Juni 8	262.198	−15.117	+0.917	257.122	−15.090	+1.523	338.513	−14.101	−13.545
16	262.928	15.370	0.832	257.852	15.352	1.439	339.282	14.171	13.625
24	263.591	15.593	0.755	258.515	15.581	1.362	339.978	14.227	13.696
Juli 2	264.179	15.782	0.686	259.102	15.776	1.294	340.592	14.269	13.757
10	264.684	15.936	0.627	259.608	15.935	1.235	341.117	14.296	13.808
18	265.098	−16.053	+0.578	260.024	−16.057	+1.187	341.547	−14.310	−13.849
26	265.415	16.132	0.541	260.343	16.139	1.149	341.872	14.311	13.878
Aug. 3	265.630	16.172	0.516	260.559	16.182	1.124	342.089	14.298	13.897
11	265.738	16.173	0.503	260.670	16.185	1.111	342.193	14.274	13.906
19	265.737	16.136	0.503	260.672	16.147	1.111	342.184	14.237	13.904
27	265.628	−16.060	+0.516	260.566	−16.071	+1.123	342.060	−14.189	−13.891
Sept. 4	265.414	15.948	0.541	260.356	15.957	1.147	341.826	14.132	13.868
12	265.101	15.803	0.578	260.047	15.809	1.184	341.488	14.066	13.835
20	264.697	15.627	0.625	259.648	15.630	1.230	341.056	13.993	13.792
28	264.216	15.427	0.681	259.171	15.425	1.285	340.543	13.915	13.741
Okt. 6	263.674	−15.208	+0.744	258.633	−15.201	+1.347	339.965	−13.833	−13.683
14	263.088	14.977	0.812	258.052	14.964	1.415	339.342	13.750	13.619
22	262.479	14.742	0.883	257.449	14.724	1.484	338.696	13.669	13.551
30	261.869	14.512	0.954	256.844	14.487	1.554	338.049	13.593	13.482
Nov. 7	261.279	14.293	1.022	256.259	14.263	1.621	337.425	13.524	13.414
15	260.730	−14.096	+1.085	255.715	−14.061	+1.683	336.844	−13.465	−13.350
23	260.242	13.927	1.141	255.231	13.887	1.738	336.329	13.419	13.293
Dez. 1	259.830	13.793	1.189	254.823	13.749	1.785	335.898	13.389	13.244
9	259.509	13.698	1.226	254.505	13.651	1.821	335.564	13.375	13.206
17	259.288	13.647	1.251	254.287	13.598	1.846	335.338	13.379	13.181
25	259.176	13.642	1.264	254.178	13.592	1.859	335.228	13.401	13.169
33	259.175	−13.683	+1.264	254.179	−13.634	+1.859	335.238	−13.441	−13.171

Saturnstrabanten 1939

0ʰ Welt-Zeit	HYPERION $\alpha_{tr}-\alpha_{pl}$		$\delta_{tr}-\delta_{pl}$	
1939	s	s	"	"
Jan. 1	− 6.5	+9.0	−21	− 9
3	+ 2.5	+7.9	−30	+ 4
5	+10.4	+3.2	−26	+16
7	+13.6	−2.3	−10	+20
9	+11.3	−6.2	+10	+17
11	+ 5.1	−7.7	+27	+ 9
13	− 2.6	−7.0	+36	0
15	− 9.6	−4.5	+36	−10
17	−14.1	−0.7	+26	−17
19	−14.8	+3.6	+ 9	−19
21	−11.2	+7.3	−10	−16
23	− 3.9	+8.8	−26	− 5
25	+ 4.9	+6.5	−31	+ 9
27	+11.4	+1.7	−22	+19
29	+13.1	−3.4	− 3	+20
31	+ 9.7	−6.6	+17	+15
Febr. 2	+ 3.1	−7.4	+32	+ 6
4	− 4.3	−6.3	+38	− 4
6	−10.6	−3.6	+34	−12
8	−14.2		+22	
Juni 24	+ 5.0	+6.7	−48	+20
26	+11.7	+2.1	−28	+33
28	+13.8	−2.8	+ 5	+32
30	+11.0	−6.3	+37	+21
Juli 2	+ 4.7	−7.5	+58	+ 5
4	− 2.8	−6.9	+63	−11
6	− 9.7	−4.3	+52	−25
8	−14.0	−0.2	+27	−33
10	−14.2	+4.8	− 6	−31
12	− 9.4	+8.5	−37	−16
14	− 0.9	+8.9	−53	+ 7
16	+ 8.0	+5.6	−46	+28
18	+13.6	+0.3	−18	+36
20	+13.9	−4.4	+18	+30
22	+ 9.5	−7.2	+48	+17
24	+ 2.3	−7.8	+65	0
26	− 5.5	−6.5	+65	−18
28	−12.0		+47	

0ʰ Welt-Zeit	HYPERION $\alpha_{tr}-\alpha_{pl}$		$\delta_{tr}-\delta_{pl}$	
1939	s	s	"	"
Juli 28	−12.0	− 3.1	+47	−31
30	−15.1	+ 1.7	+16	−36
Aug. 1	−13.4	+ 6.6	−20	−28
3	− 6.8	+ 9.5	−48	− 8
5	+ 2.7	+ 8.4	−56	+17
7	+11.1	+ 3.8	−39	+34
9	+14.9	− 1.7	− 5	+37
11	+13.2	− 5.8	+32	+27
13	+ 7.4	− 8.0	+59	+11
15	− 0.6	− 7.9	+70	− 8
17	− 8.5	− 5.7	+62	−24
19	−14.2	− 1.4	+38	−36
21	−15.6	+ 3.8	+ 2	−36
23	−11.8	+ 8.6	−34	−22
25	− 3.2	+10.0	−56	+ 3
27	+ 6.8	+ 7.0	−53	+26
29	+13.8	+ 1.6	−27	+38
31	+15.4	− 3.7	+11	+35
Sept. 2	+11.7	− 7.3	+46	+21
4	+ 4.4	− 8.5	+67	+ 3
6	− 4.1	− 7.5	+70	−15
8	−11.6	− 4.2	+55	−31
10	−15.8	+ 0.7	+24	−38
12	−15.1	+ 6.3	−14	−32
14	− 8.8	+10.0	−46	−13
16	+ 1.2	+ 9.5	−59	+14
18	+10.7	+ 4.9	−45	+34
20	+15.6	− 0.9	−11	+38
22	+14.7	− 5.7	+27	+30
24	+ 9.0	− 8.3	+57	+14
26	+ 0.7	− 8.6	+71	− 5
28	− 7.9	− 6.4	+66	−23
30	−14.3	− 2.2	+43	−35
Okt. 2	−16.5	+ 3.3	+ 8	−37
4	−13.2	+ 8.5	−29	−25
6	− 4.7	+10.6	−54	− 1
8	+ 5.9	+ 7.9	−55	+23
10	+13.8	+ 2.4	−32	+37
12	+16.2	− 3.4	+ 5	+35
14	+12.8		+40	

0ʰ Welt-Zeit	HYPERION $\alpha_{tr}-\alpha_{pl}$		$\delta_{tr}-\delta_{pl}$	
1939	s	s	"	"
Okt. 14	+12.8	− 7.3	+40	+23
16	+ 5.5	− 8.9	+63	+ 6
18	− 3.4	− 7.9	+69	−13
20	−11.3	− 4.8	+56	−28
22	−16.1	+ 0.3	+28	−36
24	−15.8	+ 6.0	− 8	−33
26	− 9.8	+10.0	−41	−15
28	+ 0.2	+ 9.9	−56	+10
30	+10.1	+ 5.5	−46	+30
Nov. 1	+15.6	− 0.4	−16	+37
3	+15.2	− 5.5	+21	+29
5	+ 9.7	− 8.3	+50	+15
7	+ 1.4	− 8.6	+65	− 2
9	− 7.2	− 6.7	+63	−19
11	−13.9	− 2.6	+44	−32
13	−16.5	+ 2.9	+12	−34
15	−13.6	+ 8.1	−22	−25
17	− 5.5	+10.5	−47	− 5
19	+ 5.0	+ 8.1	−52	+19
21	+13.1	+ 2.8	−33	+33
23	+15.9	− 3.0	0	+33
25	+12.9	− 6.9	+33	+23
27	+ 6.0	− 8.6	+56	+ 7
29	− 2.6	− 7.8	+63	− 9
Dez. 1	−10.4	− 4.9	+54	−24
3	−15.3	− 0.2	+30	−32
5	−15.5	+ 5.3	− 2	−31
7	−10.2	+ 9.4	−33	−17
9	− 0.8	+ 9.7	−50	+ 6
11	+ 8.9	+ 5.8	−44	+25
13	+14.7	0.0	−19	+33
15	+14.7	− 4.8	+14	+28
17	+ 9.9	− 7.7	+42	+16
19	+ 2.2	− 8.2	+58	0
21	− 6.0	− 6.6	+58	−15
23	−12.6	− 2.9	+43	−27
25	−15.5	+ 2.1	+16	−32
27	−13.4	+ 7.1	−16	−25
29	− 6.3	+ 9.8	−41	− 7
31	+ 3.5		−48	

0h Welt-Zeit	JAPETUS $\alpha_{tr}-\alpha_{pl}$ (s)	Diff. (s)	JAPETUS $\delta_{tr}-\delta_{pl}$ (")	Diff. (")
1939				
Jan. 1	−33.8	−0.5	− 74	−18
3	−34.3	+0.4	− 92	−16
5	−33.9	+1.2	−108	−13
7	−32.7	+2.0	−121	−10
9	−30.7	+2.8	−131	− 6
11	−27.9	+3.5	−137	− 3
13	−24.4	+4.1	−140	+ 1
15	−20.3	+4.6	−139	+ 5
17	−15.7	+5.0	−134	+ 8
19	−10.7	+5.3	−126	+11
21	− 5.4	+5.2	−115	+14
23	− 0.2	+5.3	−101	+16
25	+ 5.1	+5.1	− 85	+19
27	+10.2	+4.8	− 66	+21
29	+15.0	+4.5	− 45	+22
31	+19.5	+3.9	− 23	+22
Febr. 2	+23.4	+3.2	− 1	+22
4	+26.6	+2.5	+ 21	+21
6	+29.1	+1.9	+ 42	+21
8	+31.0		+ 63	
Juni 24	−23.8	+3.8	−163	− 1
26	−20.0	+4.4	−164	+ 3
28	−15.6	+4.8	−161	+ 8
30	−10.8	+5.1	−153	+11
Juli 2	− 5.7	+5.4	−142	+15
4	− 0.3	+5.3	−127	+19
6	+ 5.0	+5.3	−108	+22
8	+10.3	+5.0	− 86	+24
10	+15.3	+4.7	− 62	+27
12	+20.0	+4.2	− 35	+27
14	+24.2	+3.6	− 8	+28
16	+27.8	+3.0	+ 20	+27
18	+30.8	+2.2	+ 47	+27
20	+33.0	+1.5	+ 74	+25
22	+34.5	+0.6	+ 99	+23
24	+35.1	−0.2	+122	+20
26	+34.9	−1.0	+142	+17
28	+33.9		+159	

0h Welt-Zeit	JAPETUS $\alpha_{tr}-\alpha_{pl}$ (s)	Diff. (s)	JAPETUS $\delta_{tr}-\delta_{pl}$ (")	Diff. (")
1939				
Juli 28	+33.9	−1.8	+159	+13
30	+32.1	−2.6	+172	+10
Aug. 1	+29.5	−3.3	+182	+ 6
3	+26.2	−4.0	+188	+ 1
5	+22.2	−4.5	+189	− 4
7	+17.7	−4.9	+185	− 8
9	+12.8	−5.3	+177	−12
11	+ 7.5	−5.5	+165	−16
13	+ 2.0	−5.6	+149	−19
15	− 3.6	−5.5	+130	−23
17	− 9.1	−5.4	+107	−25
19	−14.5	−5.1	+ 82	−28
21	−19.6	−4.6	+ 54	−29
23	−24.2	−4.0	+ 25	−29
25	−28.2	−3.4	− 4	−30
27	−31.6	−2.6	− 34	−29
29	−34.2	−1.7	− 63	−28
31	−35.9	−0.8	− 91	−25
Sept. 2	−36.7	+0.1	−116	−23
4	−36.6	+1.1	−139	−18
6	−35.5	+2.1	−157	−15
8	−33.4	+3.0	−172	−10
10	−30.4	+3.9	−182	− 5
12	−26.5	+4.6	−187	+ 1
14	−21.9	+5.3	−186	+ 5
16	−16.6	+5.7	−181	+11
18	−10.9	+6.1	−170	+15
20	− 4.8	+6.3	−155	+20
22	+ 1.5	+6.2	−135	+24
24	+ 7.7	+6.0	−111	+27
26	+13.7	+5.7	− 84	+29
28	+19.4	+5.2	− 55	+31
30	+24.6	+4.5	− 24	+31
Okt. 2	+29.1	+3.8	+ 7	+31
4	+32.9	+2.9	+ 38	+31
6	+35.8	+2.0	+ 69	+29
8	+37.8	+1.1	+ 98	+26
10	+38.9	+0.1	+124	+23
12	+39.0	−0.9	+147	+19
14	+38.1		+166	

0h Welt-Zeit	JAPETUS $\alpha_{tr}-\alpha_{pl}$ (s)	Diff. (s)	JAPETUS $\delta_{tr}-\delta_{pl}$ (")	Diff. (")
1939				
Okt. 14	+38.1	−1.9	+166	+15
16	+36.2	−2.7	+181	+11
18	+33.5	−3.6	+192	+ 6
20	+29.9	−4.3	+198	+ 1
22	+25.6	−5.0	+199	− 4
24	+20.6	−5.4	+195	− 8
26	+15.2	−5.8	+187	−13
28	+ 9.4	−6.0	+174	−17
30	+ 3.4	−6.1	+157	−20
Nov. 1	− 2.7	−6.0	+137	−24
3	− 8.7	−5.8	+113	−27
5	−14.5	−5.4	+ 86	−28
7	−19.9	−4.9	+ 58	−30
9	−24.8	−4.2	+ 28	−30
11	−29.0	−3.5	− 2	−30
13	−32.5	−2.7	− 32	−29
15	−35.2	−1.7	− 61	−27
17	−36.9	−0.8	− 88	−25
19	−37.7	+0.2	−113	−21
21	−37.5	+1.2	−134	−18
23	−36.3	+2.2	−152	−14
25	−34.1	+3.1	−166	− 9
27	−31.0	+4.0	−175	− 4
29	−27.0	+4.6	−179	0
Dez. 1	−22.4	+5.3	−179	+ 6
3	−17.1	+5.7	−173	+11
5	−11.4	+6.0	−162	+15
7	− 5.4	+6.0	−147	+18
9	+ 0.6	+6.0	−129	+22
11	+ 6.6	+5.8	−107	+25
13	+12.4	+5.4	− 82	+27
15	+17.8	+5.0	− 55	+29
17	+22.8	+4.3	− 26	+29
19	+27.1	+3.5	+ 3	+28
21	+30.6	+2.7	+ 31	+27
23	+33.3	+1.9	+ 58	+26
25	+35.2	+1.0	+ 84	+23
27	+36.2	+0.1	+107	+21
29	+36.3	−0.8	+128	+18
31	+35.5		+146	

Östliche Elongationen (in Welt-Zeit)

MIMAS

		h			h			h			h
Jan.	0	8.3	Juni	29	9.6	Aug.	8	22.2	Sept.	18	10.7
	1	6.9		30	8.2		9	20.8		19	9.3
	2	5.5	Juli	1	6.8		10	19.4		20	7.9
	3	4.1		2	5.4		11	18.1		21	6.5
	4	2.7		3	4.0		12	16.7		22	5.1
	5	1.4		4	2.6		13	15.3		23	3.7
	6	0.0		5	1.3		14	13.9		24	2.3
	6	22.6		5	23.9		15	12.5		25	1.0
	7	21.2		6	22.5		16	11.2		25	23.6
	8	19.8		7	21.1		17	9.8		26	22.2
	9	18.4		8	19.8		18	8.4		27	20.8
	10	17.1		9	18.4		19	7.0		28	19.4
	11	15.7		10	17.0		20	5.6		29	18.0
	12	14.3		11	15.6		21	4.2		30	16.6
	13	12.9		12	14.3		22	2.8	Okt.	1	15.2
	14	11.6		13	12.9		23	1.4		2	13.9
	15	10.2		14	11.5		24	0.1		3	12.5
	16	8.8		15	10.1		24	22.7		4	11.1
	17	7.4		16	8.8		25	21.3		5	9.7
	18	6.1		17	7.4		26	19.9		6	8.3
	19	4.7		18	6.0		27	18.5		7	6.9
	20	3.3		19	4.6		28	17.1		8	5.5
	21	1.9		20	3.2		29	15.7		9	4.1
	22	0.6		21	1.8		30	14.3		10	2.7
	22	23.2		22	0.4		31	13.0		11	1.4
	23	21.8		22	23.1	Sept.	1	11.6		12	0.0
	24	20.4		23	21.7		2	10.2		12	22.6
	25	19.1		24	20.3		3	8.8		13	21.2
	26	17.7		25	18.9		4	7.4		14	19.9
	27	16.3		26	17.6		5	6.0		15	18.5
	28	14.9		27	16.2		6	4.6		16	17.1
	29	13.6		28	14.8		7	3.2		17	15.7
	30	12.2		29	13.4		8	1.8		18	14.3
	31	10.8		30	12.0		9	0.5		19	13.0
Febr.	1	9.5		31	10.7		9	23.1		20	11.6
	2	8.1	Aug.	1	9.3		10	21.7		21	10.2
	3	6.7		2	7.9		11	20.3		22	8.8
				3	6.5		12	19.0		23	7.4
				4	5.1		13	17.6		24	6.0
		h		5	3.7		14	16.2		25	4.6
Juni	26	13.7		6	2.3		15	14.8		26	3.2
	27	12.3		7	0.9		16	13.4		27	1.9
	28	10.9		7	23.6		17	12.1		28	0.5
	29	9.6		8	22.2		18	10.7		28	23.1

Östliche Elongationen (in Welt-Zeit)

MIMAS

Monat	Tag	h
Okt.	28	23.1
	29	21.7
	30	20.3
	31	18.9
Nov.	1	17.5
	2	16.1
	3	14.8
	4	13.4
	5	12.0
	6	10.6
	7	9.2
	8	7.8
	9	6.4
	10	5.0
	11	3.6
	12	2.3
	13	0.9
	13	23.5
	14	22.1
	15	20.8
	16	19.4
	17	18.0
	18	16.6
	19	15.2
	20	13.9
	21	12.5
	22	11.1
	23	9.7
	24	8.3
	25	6.9
	26	5.5
	27	4.1
	28	2.8
	29	1.4
	30	0.0
	30	22.6
Dez.	1	21.3
	2	19.9
	3	18.5
	4	17.1
	5	15.7
	6	14.4
	7	13.0
	8	11.6

MIMAS

Monat	Tag	h
Dez.	8	11.6
	9	10.2
	10	8.8
	11	7.4
	12	6.0
	13	4.6
	14	3.3
	15	1.9
	16	0.5
	16	23.1
	17	21.8
	18	20.4
	19	19.0
	20	17.6
	21	16.2
	22	14.9
	23	13.5
	24	12.1
	25	10.7
	26	9.3
	27	8.0
	28	6.6
	29	5.2
	30	3.8
	31	2.5
	32	1.1
	32	23.7

ENCELADUS

Monat	Tag	h
Jan.	1	0.1
	2	9.0
	3	17.9
	5	2.8
	6	11.7
	7	20.6
	9	5.5
	10	14.4
	11	23.3
	13	8.2
	14	17.1
	16	2.0

ENCELADUS

Monat	Tag	h
Jan.	16	2.0
	17	10.8
	18	19.7
	20	4.6
	21	13.5
	22	22.4
	24	7.3
	25	16.2
	27	1.1
	28	10.0
	29	18.9
	31	3.8
Febr.	1	12.7
	2	21.6
	4	6.5
Juni	26	19.8
	28	4.7
	29	13.6
	30	22.5
Juli	2	7.4
	3	16.3
	5	1.2
	6	10.1
	7	19.0
	9	3.9
	10	12.8
	11	21.6
	13	6.5
	14	15.4
	16	0.3
	17	9.2
	18	18.1
	20	3.0
	21	11.9
	22	20.8
	24	5.7
	25	14.6
	26	23.5
	28	8.3
	29	17.2
	31	2.1

ENCELADUS

Monat	Tag	h
Juli	31	2.1
Aug.	1	11.0
	2	19.9
	4	4.8
	5	13.7
	6	22.6
	8	7.4
	9	16.3
	11	1.2
	12	10.1
	13	19.0
	15	3.9
	16	12.7
	17	21.6
	19	6.5
	20	15.4
	22	0.2
	23	9.1
	24	18.0
	26	2.9
	27	11.7
	28	20.6
	30	5.5
	31	14.4
Sept.	1	23.2
	3	8.1
	4	17.0
	6	1.9
	7	10.8
	8	19.7
	10	4.5
	11	13.4
	12	22.3
	14	7.2
	15	16.1
	17	1.0
	18	9.8
	19	18.7
	21	3.6
	22	12.5
	23	21.3
	25	6.2
	26	15.1
	28	0.0

Östliche Elongationen (in Welt-Zeit)

ENCELADUS			ENCELADUS			TETHYS			TETHYS		
		h			h			h			h
Sept.	28	0.0	Nov.	25	21.7	Jan.	25	2.8	Aug.	28	9.9
	29	8.8		27	6.6		27	0.1		30	7.2
	30	17.7		28	15.4		28	21.5	Sept.	1	4.5
Okt.	2	2.6		30	0.3		30	18.8		3	1.8
	3	11.5	Dez.	1	9.2	Febr.	1	16.1		4	23.1
	4	20.3		2	18.1		3	13.4		6	20.4
	6	5.2		4	3.0					8	17.7
	7	14.1		5	11.9					10	15.0
	8	22.9		6	20.7			h		12	12.3
	10	7.8		8	5.6	Juni	25	5.3		14	9.5
	11	16.7		9	14.5		27	2.6		16	6.8
	13	1.6		10	23.4		28	23.9		18	4.1
	14	10.4		12	8.3		30	21.3		20	1.4
	15	19.3		13	17.2	Juli	2	18.6		21	22.7
	17	4.2		15	2.0		4	15.9		23	20.0
	18	13.1		16	10.9		6	13.2		25	17.3
	19	21.9		17	19.8		8	10.6		27	14.6
	21	6.8		19	4.7		10	7.9		29	11.8
	22	15.7		20	13.6		12	5.2	Okt.	1	9.1
	24	0.6		21	22.5		14	2.5		3	6.4
	25	9.4		23	7.3		15	23.9		5	3.7
	26	18.3		24	16.2		17	21.2		7	1.0
	28	3.2		26	1.1		19	18.5		8	22.3
	29	12.1		27	10.0		21	15.8		10	19.6
	30	20.9		28	18.9		23	13.1		12	16.9
Nov.	1	5.8		30	3.8		25	10.4		14	14.2
	2	14.7		31	12.7		27	7.7		16	11.4
	3	23.6		32	21.6		29	5.0		18	8.7
	5	8.4					31	2.3		20	6.0
	6	17.3	TETHYS			Aug.	1	23.6		22	3.3
	8	2.2			h		3	20.9		24	0.6
	9	11.1	Jan.	2	11.0		5	18.2		25	21.9
	10	20.0		4	8.3		7	15.5		27	19.2
	12	4.8		6	5.6		9	12.8		29	16.5
	13	13.7		8	2.9		11	10.1		31	13.8
	14	22.6		10	0.2		13	7.5	Nov.	2	11.1
	16	7.5		11	21.6		15	4.8		4	8.4
	17	16.4		13	18.9		17	2.1		6	5.7
	19	1.3		15	16.2		18	23.4		8	3.0
	20	10.1		17	13.5		20	20.7		10	0.3
	21	19.0		19	10.8		22	18.0		11	21.6
	23	3.9		21	8.2		24	15.3		13	18.9
	24	12.8		23	5.5		26	12.6		15	16.2
	25	21.7		25	2.8		28	9.9		17	13.4

Östliche Elongationen (in Welt-Zeit)

TETHYS

		h
Nov.	17	13.4
	19	10.7
	21	8.0
	23	5.3
	25	2.6
	26	23.9
	28	21.2
	30	18.5
Dez.	2	15.8
	4	13.1
	6	10.4
	8	7.7
	10	5.0
	12	2.3
	13	23.6
	15	20.9
	17	18.2
	19	15.5
	21	12.8
	23	10.1
	25	7.4
	27	4.7
	29	2.0
	30	23.4
	32	20.7

DIONE

		h
Jan.	1	12.0
	4	5.7
	6	23.4
	9	17.1
	12	10.8
	15	4.5
	17	22.3
	20	16.0
	23	9.7
	26	3.4
	28	21.1
	31	14.8
Febr.	3	8.6

DIONE

		h
Juni	25	18.9
	28	12.7
Juli	1	6.4
	4	0.1
	6	17.8
	9	11.5
	12	5.2
	14	22.9
	17	16.6
	20	10.3
	23	4.0
	25	21.7
	28	15.4
	31	9.1
Aug.	3	2.8
	5	20.5
	8	14.2
	11	7.9
	14	1.5
	16	19.2
	19	12.9
	22	6.6
	25	0.3
	27	17.9
	30	11.6
Sept.	2	5.2
	4	22.9
	7	16.6
	10	10.3
	13	3.9
	15	21.6
	18	15.2
	21	8.9
	24	2.5
	26	20.2
	29	13.8
Okt.	2	7.5
	5	1.1
	7	18.8
	10	12.4
	13	6.1
	15	23.7
	18	17.4
	21	11.0

DIONE

		h
Okt.	21	11.0
	24	4.7
	26	22.3
	29	16.0
Nov.	1	9.6
	4	3.3
	6	20.9
	9	14.6
	12	8.3
	15	1.9
	17	19.6
	20	13.2
	23	6.9
	26	0.6
	28	18.3
Dez.	1	11.9
	4	5.6
	6	23.2
	9	16.9
	12	10.6
	15	4.3
	17	22.0
	20	15.6
	23	9.3
	26	3.0
	28	20.7
	31	14.4
	34	8.1

RHEA

		h
Jan.	4	17.7
	9	6.1
	13	18.6
	18	7.1
	22	19.6
	27	8.1
	31	20.6
Febr.	5	9.2

RHEA

		h
Juni	25	14.6
	30	3.1
Juli	4	15.6
	9	4.1
	13	16.6
	18	5.1
	22	17.6
	27	6.0
	31	18.5
Aug.	5	6.9
	9	19.3
	14	7.7
	18	20.1
	23	8.5
	27	20.9
Sept.	1	9.3
	5	21.7
	10	10.1
	14	22.4
	19	10.8
	23	23.1
	28	11.4
Okt.	2	23.8
	7	12.1
	12	0.4
	16	12.8
	21	1.1
	25	13.4
	30	1.7
Nov.	3	14.0
	8	2.3
	12	14.7
	17	3.0
	21	15.4
	26	3.7
	30	16.0
Dez.	5	4.4
	9	16.7
	14	5.1
	18	17.6
	23	6.0
	27	18.4
	32	6.8

Elongationen und Konjunktionen (in Welt-Zeit)

TITAN

		h	
Jan.	0	0.9	Ob. Konj.
	4	2.7	Östl. El.
	8	7.1	Unt. Konj.
	12	4.9	Westl. El.
	16	0.3	Ob. Konj.
	20	2.2	Östl. El.
	24	6.7	Unt. Konj.
	28	4.5	Westl. El.
Febr.	1	0.0	Ob. Konj.
	5	2.1	Östl. El.
Juni	25	4.0	Ob. Konj.
	29	7.1	Östl. El.
Juli	3	10.9	Unt. Konj.
	7	7.6	Westl. El.
	11	3.8	Ob. Konj.
	15	6.9	Östl. El.
	19	10.5	Unt. Konj.
	23	7.0	Westl. El.
	27	3.2	Ob. Konj.
	31	6.2	Östl. El.
Aug.	4	9.7	Unt. Konj.
	8	6.1	Westl. El.
	12	2.1	Ob. Konj.
	16	5.1	Östl. El.
	20	8.4	Unt. Konj.
	24	4.7	Westl. El.
	28	0.6	Ob. Konj.
Sept.	1	3.5	Östl. El.
	5	6.7	Unt. Konj.
	9	2.9	Westl. El.
	12	22.7	Ob. Konj.
	17	1.4	Östl. El.
	21	4.6	Unt. Konj.
	25	0.8	Westl. El.
	28	20.4	Ob. Konj.
Okt.	2	23.0	Östl. El.
	7	2.1	Unt. Konj.
	10	22.4	Westl. El.
	14	17.9	Ob. Konj.
	18	20.4	Östl. El.
	22	23.5	Unt. Konj.
	26	19.9	Westl. El.
Okt.	30	15.3	Ob. Konj.
Nov.	3	17.7	Östl. El.
	7	21.0	Unt. Konj.
	11	17.4	Westl. El.
	15	12.8	Ob. Konj.
	19	15.2	Östl. El.
	23	18.6	Unt. Konj.
	27	15.1	Westl. El.
Dez.	1	10.6	Ob. Konj.
	5	13.0	Östl. El.
	9	16.5	Unt. Konj.
	13	13.2	Westl. El.
	17	8.8	Ob. Konj.
	21	11.2	Östl. El.
	25	14.9	Unt. Konj.
	29	11.7	Westl. El.
	33	7.4	Ob. Konj.

HYPERION

		h	
Jan.	2	11.6	Ob. Konj.
	6	22.9	Östl. El.
	12	8.8	Unt. Konj.
	18	17.1	Westl. El.
	23	21.9	Ob. Konj.
	28	9.4	Östl. El.
Febr.	2	20.4	Unt. Konj.
Juni	27	11.8	Östl. El.
Juli	3	7.0	Unt. Konj.
	9	10.1	Westl. El.
	14	5.5	Ob. Konj.
	18	19.3	Östl. El.
	24	14.9	Unt. Konj.
	30	17.0	Westl. El.
Aug.	4	11.4	Ob. Konj.
	9	1.3	Östl. El.
	14	21.0	Unt. Konj.
	20	22.3	Westl. El.
Aug.	25	16.1	Ob. Konj.
	30	5.9	Östl. El.
Sept.	5	1.4	Unt. Konj.
	11	2.1	Westl. El.
	15	19.5	Ob. Konj.
	20	9.1	Östl. El.
	26	4.4	Unt. Konj.
Okt.	2	4.7	Westl. El.
	6	21.9	Ob. Konj.
	11	11.3	Östl. El.
	17	6.4	Unt. Konj.
	23	6.6	Westl. El.
	27	23.8	Ob. Konj.
Nov.	1	13.1	Östl. El.
	7	8.0	Unt. Konj.
	13	8.5	Westl. El.
	18	1.8	Ob. Konj.
	22	15.0	Östl. El.
	28	10.1	Unt. Konj.
Dez.	4	10.9	Westl. El.
	9	4.3	Ob. Konj.
	13	17.6	Östl. El.
	19	13.3	Unt. Konj.
	25	14.5	Westl. El.
	30	7.8	Ob. Konj.

JAPETUS

		h	
Jan.	4	9.2	Westl. El.
	23	14.8	Ob. Konj.
Febr.	12	5.3	Östl. El.
Juli	4	22.3	Ob. Konj.
	24	16.2	Östl. El.
Aug.	14	13.8	Unt. Konj.
Sept.	3	14.3	West. El.
	22	6.6	Ob. Konj.
Okt.	11	11.7	Östl. El.
	31	21.8	Unt. Konj.
Nov.	20	18.4	Westl. El.
Dez.	9	11.6	Ob. Konj.
	28	20.2	Östl.El.

Welt-Zeit 1939	h	
Jan. 1	18	♅ ☌ ☾
3	10	☿ gr. westl. El. 22° 49′
3	22	☉ in Erdnähe
4	15	♀ im Perihel
10	15	♆ ☌ ☾
14	21	♂ ☌ ☾
16	9	♀ ☌ ☾
18	20	☿ ☌ ☾
22	15	♅ stationär in AR.
23	18	♃ ☌ ☾
26	13	☿ im Aphel
26	20	♄ ☌ ☾
29	2	♅ ☌ ☾
30	13	♀ gr. westl. El. 46° 56′
Febr. 7	0	♆ ☌ ☾
12	13	♂ ☌ ☾
15	3	♀ ☌ ☾
19	2	☿ obere ☌ ☉
19	15	☿ ☌ ☾
20	12	♃ ☌ ☾
23	6	♄ ☌ ☾
25	9	♅ ☌ ☾
26	5	☿ ☌ ♃, ☿ 0° 25′ S.
März 6	10	♆ ☌ ☾
6	12	♃ ☌ ☉
11	12	☿ im Perihel
13	5	♂ ☌ ☾
13	11	♆ ☍ ☉
17	1	☿ gr. östl. El. 18° 27′
17	9	♀ ☌ ☾
20	8	♃ ☌ ☾
21	12	Frühlingsanfang
22	11	☿ ☌ ☾
22	17	♄ ☌ ☾
24	7	☿ stationär in AR.
24	16	♅ ☌ ☾
April 2	19	♆ ☌ ☾
3	8	☿ untere ☌ ☉
10	22	♂ ☌ ☾
11	20	♄ ☌ ☉
15	18	☿ stationär in AR.
April 16	18	♀ ☌ ☾
17	4	♃ ☌ ☾
18	0	☿ ☌ ☾
19	—	☉ ringförm. Finstern.
19	7	♄ ☌ ☾
21	1	♅ ☌ ☾
22	2	♀ ☌ ♃, ♀ 0° 24′ S.
24	12	☿ im Aphel
26	22	♀ im Aphel
30	2	♆ ☌ ☾
Mai 1	9	☿ gr. westl. El. 26° 55′
3	—	☾ totale Finsternis
9	9	♅ ☌ ☉
9	10	♂ ☌ ☾
10	15	☿ ☌ ♄, ☿ 0° 45′ S.
14	23	♃ ☌ ☾
16	21	♀ ☌ ♄, ♀ 0° 34′ N.
16	21	♄ ☌ ☾
16	21	♀ ☌ ☾
17	14	☿ ☌ ☾
18	12	♅ ☌ ☾
25	8	☿ ☌ ♅, ☿ 1° 12′ S.
27	7	♆ ☌ ☾
Juni 2	10	♆ stationär in AR.
5	9	♀ ☌ ♅, ♀ 1° 11′ S.
6	13	♂ ☌ ☾
7	9	☿ obere ☌ ☉
7	12	☿ im Perihel
11	17	♃ ☌ ☾
13	12	♄ ☌ ☾
15	0	♅ ☌ ☾
15	21	♀ ☌ ☾
18	13	☿ ☌ ☾
22	8	Sommersanfang
23	13	♆ ☌ ☾
24	8	♂ stationär in AR.
Juli 3	23	♂ ☌ ☾
5	20	☉ in Erdferne
9	6	♃ ☌ ☾
10	24	♄ ☌ ☾
12	12	♅ ☌ ☾

Konstellationen 1939

Welt-Zeit 1939	h	
Juli 13	19	☿ gr. östl. El. 26° 31′
15	21	♀ ☌ ☾
18	19	☿ ☌ ☾
20	21	♆ ☌ ☾
21	11	☿ im Aphel
23	8	♂ ☍ ☉
26	22	☿ stationär in AR.
27	21	♂ d. Erde a. nächsten
30	12	♃ stationär in AR.
30	16	♂ ☌ ☾
Aug. 5	14	♃ ☌ ☾
7	9	♄ ☌ ☾
8	21	⛢ ☌ ☾
10	16	☿ untere ☌ ☉
13	11	☿ ☌ ♀, ☿ 5° 40′ S.
14	17	☿ ☌ ☾
14	21	♀ ☌ ☾
14	23	♄ stationär in AR.
17	7	♆ ☌ ☾
17	8	☿ im Perihel
20	1	☿ stationär in AR.
24	15	♂ stationär in AR.
26	14	♂ ☌ ☾
28	7	☿ gr. westl. El. 18° 16′
28	16	⛢ stationär in AR.
Sept. 1	16	♃ ☌ ☾
3	11	☿ im Perihel
3	14	♄ ☌ ☾
5	4	⛢ ☌ ☾
5	20	♀ obere ☌ ☉
13	1	☿ ☌ ☾
13	18	♀ ☌ ☾
13	19	♆ ☌ ☾
14	7	♀ ☌ ♆, ♀ 0° 16′ N.
16	21	♆ ☌ ☉
17	18	♂ im Perihel
19	12	☿ ☌ ♆, ☿ 0° 34′ N.
22	14	☿ obere ☌ ☉
23	8	♂ ☌ ☾
23	23	Herbstanfang
27	19	♃ ☍ ☉
28	16	♃ ☌ ☾
30	17	♄ ☌ ☾
Okt. 2	1	☿ ☌ ♀, ☿ 0° 36′ S.
2	9	⛢ ☌ ☾
11	7	♆ ☌ ☾
12	—	☉ totale Finsternis
13	15	♀ ☌ ☾
13	21	☿ ☌ ☾
17	10	☿ im Aphel
21	18	♂ ☌ ☾
22	3	♄ ☍ ☉
25	17	♃ ☌ ☾
27	20	♄ ☌ ☾
28	—	☾ part. Finsternis
29	13	⛢ ☌ ☾
Nov. 7	17	♆ ☌ ☾
8	3	☿ gr. östl. El. 23° 10′
12	16	♀ ☌ ☾
13	0	☿ ☌ ☾
13	6	⛢ ☍ ☉
18	6	☿ ☌ ♀, ☿ 1° 24′ S.
18	14	☿ stationär in AR.
19	12	♂ ☌ ☾
21	22	♃ ☌ ☾
24	1	♄ ☌ ☾
25	11	♃ stationär in AR.
25	19	⛢ ☌ ☾
28	17	☿ untere ☌ ☉
30	10	☿ im Perihel
Dez. 5	0	♆ ☌ ☾
7	15	♀ im Aphel
8	6	☿ stationär in AR.
9	10	☿ ☌ ☾
13	1	♀ ☌ ☾
17	0	☿ gr. westl. El. 21° 25′
18	10	♂ ☌ ☾
19	8	♃ ☌ ☾
21	8	♄ ☌ ☾
22	18	Wintersanfang
23	3	⛢ ☌ ☾
29	2	♄ stationär in AR.
29	5	♆ stationär in AR.

Präzession in Rektaszension (p_α) und Deklination (p_δ)

α \ δ	p_α +60°	+50°	+40°	+30°	+20°	+10°	0°	−10°	−20°	−30°	−40°	−50°	−60°	p_δ
h	s	s	s	s	s	s	s	s	s	s	s	s	s	"
0	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	+20.0
1	3.67	3.48	3.36	3.27	3.20	3.13	3.07	3.01	2.95	2.87	2.78	2.66	2.47	+19.4
2	4.23	3.87	3.63	3.46	3.32	3.19	3.07	2.95	2.83	2.69	2.51	2.28	1.92	+17.4
3	4.71	4.20	3.87	3.62	3.42	3.24	3.07	2.91	2.73	2.53	2.28	1.95	1.44	+14.2
4	5.08	4.45	4.04	3.74	3.49	3.28	3.07	2.87	2.65	2.41	2.10	1.69	1.07	+10.0
5	5.31	4.61	4.16	3.82	3.54	3.30	3.07	2.84	2.60	2.33	1.99	1.53	0.84	+ 5.2
6	5.39	4.67	4.19	3.84	3.56	3.31	3.07	2.84	2.59	2.30	1.95	1.48	0.76	0.0
7	5.31	4.61	4.16	3.82	3.54	3.30	3.07	2.84	2.60	2.33	1.99	1.53	0.84	− 5.2
8	5.08	4.45	4.04	3.74	3.49	3.28	3.07	2.87	2.65	2.41	2.10	1.69	1.07	−10.0
9	4.71	4.20	3.87	3.62	3.42	3.24	3.07	2.91	2.73	2.53	2.28	1.95	1.44	−14.2
10	4.23	3.87	3.63	3.46	3.32	3.19	3.07	2.95	2.83	2.69	2.51	2.28	1.92	−17.4
11	3.67	3.48	3.36	3.27	3.20	3.13	3.07	3.01	2.95	2.87	2.78	2.66	2.47	−19.4
12	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	−20.0
13	2.47	2.66	2.78	2.87	2.95	3.01	3.07	3.13	3.20	3.27	3.36	3.48	3.67	−19.4
14	1.92	2.28	2.51	2.69	2.83	2.95	3.07	3.19	3.32	3.46	3.63	3.87	4.23	−17.4
15	1.44	1.95	2.28	2.53	2.73	2.91	3.07	3.24	3.42	3.62	3.87	4.20	4.71	−14.2
16	1.07	1.69	2.10	2.41	2.65	2.87	3.07	3.28	3.49	3.74	4.04	4.45	5.08	−10.0
17	0.84	1.53	1.99	2.33	2.60	2.84	3.07	3.30	3.54	3.82	4.16	4.61	5.31	− 5.2
18	0.76	1.48	1.95	2.30	2.59	2.84	3.07	3.31	3.56	3.84	4.19	4.67	5.39	0.0
19	0.84	1.53	1.99	2.33	2.60	2.84	3.07	3.30	3.54	3.82	4.16	4.61	5.31	+ 5.2
20	1.07	1.69	2.10	2.41	2.65	2.87	3.07	3.28	3.49	3.74	4.04	4.45	5.08	+10.0
21	1.44	1.95	2.28	2.53	2.73	2.91	3.07	3.24	3.42	3.62	3.87	4.20	4.71	+14.2
22	1.92	2.28	2.51	2.69	2.83	2.95	3.07	3.19	3.32	3.46	3.63	3.87	4.23	+17.4
23	2.47	2.66	2.78	2.87	2.95	3.01	3.07	3.13	3.20	3.27	3.36	3.48	3.67	+19.4
24	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	+20.0

Präzessionswerte und Schiefe der Ekliptik

Zeit	m	n	ψ	$\log \pi$	Π	ε
1900.0	3ˢ.07234	20".0468	50".2564	9.67309	173° 57'.06	23° 27' 8".26
1905.0	3.07243	20.0464	50.2575	9.67305	173 59.80	23 27 5.92
1910.0	3.07252	20.0460	50.2586	9.67302	174 2.53	23 27 3.57
1915.0	3.07262	20.0456	50.2597	9.67299	174 5.27	23 27 1.23
1920.0	3.07271	20.0451	50.2608	9.67296	174 8.01	23 26 58.89
1925.0	3.07280	20.0447	50.2620	9.67293	174 10.75	23 26 56.54
1930.0	3.07290	20.0443	50.2631	9.67290	174 13.49	23 26 54.20
1935.0	3.07299	20.0439	50.2642	9.67287	174 16.23	23 26 51.86
1940.0	3.07308	20.0434	50.2653	9.67284	174 18.97	23 26 49.52
1945.0	3.07317	20.0430	50.2664	9.67281	174 21.71	23 26 47.17
1950.0	3.07327	20.0426	50.2675	9.67278	174 24.45	23 26 44.83

Länge λ	Präzession in Länge p_λ — Breite β: 0°	+1°	+2°	+3°	+4°	+5°	+6°	+7°	+8°	+9°	Präz. in Br. p_β — Länge λ	Präzession p_β	
0°	50.″268	.″259	.″251	.″243	.″235	50.″227	.″218	.″210	.″202	.″193	0°	+0.″046	81
10	.268	.260	.252	.244	.236	.228	.220	.212	.204	.196	10	+0.127	76
20	.268	.260	.253	.245	.238	.230	.223	.215	.208	.200	20	+0.203	71
30	.268	.261	.254	.247	.241	.234	.227	.220	.214	.207	30	+0.274	62
40	50.268	.262	.256	.250	.244	50.239	.233	.227	.221	.215	40	+0.336	52
50	.268	.263	.258	.254	.249	.244	.240	.235	.230	.225	50	+0.388	41
60	.268	.264	.261	.257	.254	.250	.247	.244	.240	.237	60	+0.429	27
70	.268	.265	.263	.261	.259	.257	.255	.253	.251	.249	70	+0.456	13
80	50.268	.267	.266	.266	.265	50.264	.264	.263	.262	.262	80	+0.469	1
90	.268	.268	.269	.270	.271	.272	.272	.273	.274	.275	90	+0.468	15
100	.268	.270	.272	.274	.276	.279	.281	.283	.285	.288	100	+0.453	28
110	.268	.271	.275	.278	.282	.285	.289	.292	.296	.300	110	+0.425	42
120	50.268	.272	.277	.282	.287	50.291	.296	.301	.306	.311	120	+0.383	54
130	.268	.273	.279	.285	.291	.297	.303	.309	.315	.321	130	+0.329	63
140	.268	.274	.281	.288	.295	.301	.308	.315	.322	.329	140	+0.266	71
150	.268	.275	.282	.290	.297	.305	.313	.320	.328	.335	150	+0.195	78
160	50.268	.275	.283	.291	.299	50.307	.315	.323	.332	.340	160	+0.117	81
170	.268	.276	.284	.292	.300	.309	.317	.325	.333	.342	170	+0.036	82
180	.268	.276	.284	.292	.300	.308	.317	.325	.333	.342	180	—0.046	81
190	.268	.275	.283	.291	.299	.307	.315	.323	.331	.339	190	—0.127	76
200	50.268	.275	.282	.290	.297	50.305	.312	.320	.327	.335	200	—0.203	71
210	.268	.274	.281	.288	.294	.301	.308	.315	.321	.328	210	—0.274	62
220	.268	.273	.279	.285	.291	.296	.302	.308	.314	.320	220	—0.336	52
230	.268	.272	.277	.281	.286	.291	.295	.300	.305	.310	230	—0.388	41
240	50.268	.271	.274	.278	.281	50.285	.288	.291	.295	.298	240	—0.429	27
250	.268	.270	.272	.274	.276	.278	.280	.282	.284	.286	250	—0.456	13
260	.268	.268	.269	.269	.270	.271	.271	.272	.273	.273	260	—0.469	1
270	.268	.267	.266	.265	.264	.263	.263	.262	.261	.260	270	—0.468	15
280	50.268	.265	.263	.261	.259	50.256	.254	.252	.250	.247	280	—0.453	28
290	.268	.264	.260	.257	.253	.250	.246	.243	.239	.235	290	—0.425	42
300	.268	.263	.258	.253	.248	.244	.239	.234	.229	.224	300	—0.383	54
310	.268	.262	.256	.250	.244	.238	.232	.226	.220	.214	310	—0.329	63
320	50.268	.261	.254	.247	.240	50.234	.227	.220	.213	.206	320	—0.266	71
330	.268	.260	.253	.245	.238	.230	.222	.215	.207	.200	330	—0.195	78
340	.268	.260	.252	.244	.236	.228	.220	.212	.203	.195	340	—0.117	81
350	.268	.259	.251	.243	.235	.226	.218	.210	.202	.193	350	—0.036	82
360	50.268	.259	.251	.243	.235	50.227	.218	.210	.202	.193	360	+0.046	

Länge λ	Präzession in Länge p_λ — Breite β: 0°	−1°	−2°	−3°	−4°	−5°	−6°	−7°	−8°	−9°	Länge λ	Präz. in Br. p_β — Präzession p_β	
0°	50.″268	″.276	″.284	″.292	″.300	50.″308	″.317	″.325	″.333	″.342	0°	+0.″046	81
10	.268	.275	.283	.291	.299	.307	.315	.323	.331	.339	10	+0.127	76
20	.268	.275	.282	.290	.297	.305	.312	.320	.327	.335	20	+0.203	71
30	.268	.274	.281	.288	.294	.301	.308	.315	.321	.328	30	+0.274	62
40	50.268	.273	.279	.285	.291	50.296	.302	.308	.314	.320	40	+0.336	52
50	.268	.272	.277	.281	.286	.291	.295	.300	.305	.310	50	+0.388	41
60	.268	.271	.274	.278	.281	.285	.288	.291	.295	.298	60	+0.429	27
70	.268	.270	.272	.274	.276	.278	.280	.282	.284	.286	70	+0.456	13
80	50.268	.268	.269	.269	.270	50.271	.271	.272	.273	.273	80	+0.469	1
90	.268	.267	.266	.265	.264	.263	.263	.262	.261	.260	90	+0.468	15
100	.268	.265	.263	.261	.259	.256	.254	.252	.250	.247	100	+0.453	28
110	.268	.264	.260	.257	.253	.250	.246	.243	.239	.235	110	+0.425	42
120	50.268	.263	.258	.253	.248	50.244	.239	.234	.229	.224	120	+0.383	54
130	.268	.262	.256	.250	.244	.238	.232	.226	.220	.214	130	+0.329	63
140	.268	.261	.254	.247	.240	.234	.227	.220	.216	.206	140	+0.266	71
150	.268	.260	.253	.245	.238	.230	.222	.215	.207	.200	150	+0.195	78
160	50.268	.260	.252	.244	.236	50.228	.220	.212	.203	.195	160	+0.117	81
170	.268	.259	.251	.243	.235	.226	.218	.210	.202	.193	170	+0.036	82
180	.268	.259	.251	.243	.235	.227	.218	.210	.202	.193	180	−0.046	81
190	.268	.260	.252	.244	.236	.228	.220	.212	.204	.196	190	−0.127	76
200	50.268	.260	.253	.245	.238	50.230	.223	.215	.208	.200	200	−0.203	71
210	.268	.261	.254	.247	.241	.234	.227	.220	.214	.207	210	−0.274	62
220	.268	.262	.256	.250	.244	.239	.233	.227	.221	.215	220	−0.336	52
230	.268	.263	.258	.254	.249	.244	.240	.235	.230	.225	230	−0.388	41
240	50.268	.264	.261	.257	.254	50.250	.247	.244	.240	.237	240	−0.429	27
250	.268	.265	.263	.261	.259	.257	.255	.253	.251	.249	250	−0.456	13
260	.268	.267	.266	.266	.265	.264	.264	.263	.262	.262	260	−0.469	1
270	.268	.268	.269	.270	.271	.272	.272	.273	.274	.275	270	−0.468	15
280	50.268	.270	.272	.274	.276	50.279	.281	.283	.285	.288	280	−0.453	28
290	.268	.271	.275	.278	.282	.285	.289	.292	.296	.300	290	−0.425	42
300	.268	.272	.277	.282	.287	.291	.296	.301	.306	.311	300	−0.383	54
310	.268	.273	.279	.285	.291	.297	.303	.309	.315	.321	310	−0.329	63
320	50.268	.274	.281	.288	.295	50.301	.308	.315	.322	.329	320	−0.266	71
330	.268	.275	.282	.290	.297	.305	.313	.320	.328	.335	330	−0.195	78
340	.268	.275	.283	.291	.299	.307	.315	.323	.332	.340	340	−0.117	81
350	.268	.276	.284	.292	.300	.309	.317	.325	.333	.342	350	−0.036	82
360	50.268	.276	.284	.292	.300	50.308	.317	.325	.333	.342	360	+0.046	

Verwandlung von mittlerer Zeit in Sternzeit

Red.	0m	1m	2m	3m	Red.		Red.	
s	h m s	h m s	h m s	h m s	s	m s	s	m s
0	0 0 0	6 5 15	12 10 29	18 15 44	0.00	0 0	0.50	3 3
1	0 6 5	6 11 20	12 16 34	18 21 49	0.01	0 4	0.51	3 6
2	0 12 10	6 17 25	12 22 40	18 27 54	0.02	0 7	0.52	3 10
3	0 18 16	6 23 30	12 28 45	18 33 59	0.03	0 11	0.53	3 14
4	0 24 21	6 29 36	12 34 50	18 40 5	0.04	0 15	0.54	3 17
5	0 30 26	6 35 41	12 40 55	18 46 10	0.05	0 18	0.55	3 21
6	0 36 31	6 41 46	12 47 1	18 52 15	0.06	0 22	0.56	3 25
7	0 42 37	6 47 51	12 53 6	18 58 20	0.07	0 26	0.57	3 28
8	0 48 42	6 53 56	12 59 11	19 4 26	0.08	0 29	0.58	3 32
9	0 54 47	7 0 2	13 5 16	19 10 31	0.09	0 33	0.59	3 35
10	1 0 52	7 6 7	13 11 21	19 16 36	0.10	0 37	0.60	3 39
11	1 6 58	7 12 12	13 17 27	19 22 41	0.11	0 40	0.61	3 43
12	1 13 3	7 18 17	13 23 32	19 28 47	0.12	0 44	0.62	3 46
13	1 19 8	7 24 23	13 29 37	19 34 52	0.13	0 47	0.63	3 50
14	1 25 13	7 30 28	13 35 42	19 40 57	0.14	0 51	0.64	3 54
15	1 31 19	7 36 33	13 41 48	19 47 2	0.15	0 55	0.65	3 57
16	1 37 24	7 42 38	13 47 53	19 53 7	0.16	0 58	0.66	4 1
17	1 43 29	7 48 44	13 53 58	19 59 13	0.17	1 2	0.67	4 5
18	1 49 34	7 54 49	14 0 3	20 5 18	0.18	1 6	0.68	4 8
19	1 55 40	8 0 54	14 6 9	20 11 23	0.19	1 9	0.69	4 12
20	2 1 45	8 6 59	14 12 14	20 17 28	0.20	1 13	0.70	4 16
21	2 7 50	8 13 5	14 18 19	20 23 34	0.21	1 17	0.71	4 19
22	2 13 55	8 19 10	14 24 24	20 29 39	0.22	1 20	0.72	4 23
23	2 20 1	8 25 15	14 30 30	20 35 44	0.23	1 24	0.73	4 27
24	2 26 6	8 31 20	14 36 35	20 41 49	0.24	1 28	0.74	4 30
25	2 32 11	8 37 26	14 42 40	20 47 55	0.25	1 31	0.75	4 34
26	2 38 16	8 43 31	14 48 45	20 54 0	0.26	1 35	0.76	4 38
27	2 44 22	8 49 36	14 54 51	21 0 5	0.27	1 39	0.77	4 41
28	2 50 27	8 55 41	15 0 56	21 6 10	0.28	1 42	0.78	4 45
29	2 56 32	9 1 47	15 7 1	21 12 16	0.29	1 46	0.79	4 49
30	3 2 37	9 7 52	15 13 6	21 18 21	0.30	1 50	0.80	4 52
31	3 8 43	9 13 57	15 19 12	21 24 26	0.31	1 53	0.81	4 56
32	3 14 48	9 20 2	15 25 17	21 30 31	0.32	1 57	0.82	4 59
33	3 20 53	9 26 8	15 31 22	21 36 37	0.33	2 1	0.83	5 3
34	3 26 58	9 32 13	15 37 27	21 42 42	0.34	2 4	0.84	5 7
35	3 33 3	9 38 18	15 43 33	21 48 47	0.35	2 8	0.85	5 10
36	3 39 9	9 44 23	15 49 38	21 54 52	0.36	2 11	0.86	5 14
37	3 45 14	9 50 28	15 55 43	22 0 58	0.37	2 15	0.87	5 18
38	3 51 19	9 56 34	16 1 48	22 7 3	0.38	2 19	0.88	5 21
39	3 57 24	10 2 39	16 7 54	22 13 8	0.39	2 22	0.89	5 25
40	4 3 30	10 8 44	16 13 59	22 19 13	0.40	2 26	0.90	5 29
41	4 9 35	10 14 49	16 20 4	22 25 19	0.41	2 30	0.91	5 32
42	4 15 40	10 20 55	16 26 9	22 31 24	0.42	2 33	0.92	5 36
43	4 21 45	10 27 0	16 32 14	22 37 29	0.43	2 37	0.93	5 40
44	4 27 51	10 33 5	16 38 20	22 43 34	0.44	2 41	0.94	5 43
45	4 33 56	10 39 10	16 44 25	22 49 39	0.45	2 44	0.95	5 47
46	4 40 1	10 45 16	16 50 30	22 55 45	0.46	2 48	0.96	5 51
47	4 46 6	10 51 21	16 56 35	23 1 50	0.47	2 52	0.97	5 54
48	4 52 12	10 57 26	17 2 41	23 7 55	0.48	2 55	0.98	5 58
49	4 58 17	11 3 31	17 8 46	23 14 0	0.49	2 59	0.99	6 2
50	5 4 22	11 9 37	17 14 51	23 20 6	0.50	3 3	1.00	6 5
51	5 10 27	11 15 42	17 20 56	23 26 11				
52	5 16 33	11 21 47	17 27 2	23 32 16				
53	5 22 38	11 27 52	17 33 7	23 38 21				
54	5 28 43	11 33 58	17 39 12	23 44 27				
55	5 34 48	11 40 3	17 45 17	23 50 32				
56	5 40 54	11 46 8	17 51 23	23 56 37				
57	5 46 59	11 52 13	17 57 28	24 2 42				
58	5 53 4	11 58 19	18 3 33	24 8 48				
59	5 59 9	12 4 24	18 9 38	24 14 53				

Die Reduktion ist zur mittleren Zeit zu addieren.

Red.	0m	1m	2m	3m	Red.		Red.	
s	h m s	h m s	h m s	h m s	s	m s	s	m s
0	0 0 0	6 6 15	12 12 29	18 18 44	0.00	0 0	0.50	3 3
1	0 6 6	6 12 21	12 18 35	18 24 50	0.01	0 4	0.51	3 7
2	0 12 12	6 18 27	12 24 42	18 30 56	0.02	0 7	0.52	3 10
3	0 18 19	6 24 33	12 30 48	18 37 2	0.03	0 11	0.53	3 14
4	0 24 25	6 30 40	12 36 54	18 43 9	0.04	0 15	0.54	3 18
5	0 30 31	6 36 46	12 43 0	18 49 15	0.05	0 18	0.55	3 21
6	0 36 37	6 42 52	12 49 7	18 55 21	0.06	0 22	0.56	3 25
7	0 42 44	6 48 58	12 55 13	19 1 27	0.07	0 26	0.57	3 29
8	0 48 50	6 55 4	13 1 19	19 7 34	0.08	0 29	0.58	3 32
9	0 54 56	7 1 11	13 7 25	19 13 40	0.09	0 33	0.59	3 36
10	1 1 2	7 7 17	13 13 31	19 19 46	0.10	0 37	0.60	3 40
11	1 7 9	7 13 23	13 19 38	19 25 52	0.11	0 40	0.61	3 43
12	1 13 15	7 19 29	13 25 44	19 31 59	0.12	0 44	0.62	3 47
13	1 19 21	7 25 36	13 31 50	19 38 5	0.13	0 48	0.63	3 51
14	1 25 27	7 31 42	13 37 56	19 44 11	0.14	0 51	0.64	3 54
15	1 31 34	7 37 48	13 44 3	19 50 17	0.15	0 55	0.65	3 58
16	1 37 40	7 43 54	13 50 9	19 56 23	0.16	0 59	0.66	4 2
17	1 43 46	7 50 1	13 56 15	20 2 30	0.17	1 2	0.67	4 5
18	1 49 52	7 56 7	14 2 21	20 8 36	0.18	1 6	0.68	4 9
19	1 55 59	8 2 13	14 8 28	20 14 42	0.19	1 10	0.69	4 13
20	2 2 5	8 8 19	14 14 34	20 20 48	0.20	1 13	0.70	4 16
21	2 8 11	8 14 26	14 20 40	20 26 55	0.21	1 17	0.71	4 20
22	2 14 17	8 20 32	14 26 46	20 33 1	0.22	1 21	0.72	4 24
23	2 20 24	8 26 38	14 32 53	20 39 7	0.23	1 24	0.73	4 27
24	2 26 30	8 32 44	14 38 59	20 45 13	0.24	1 28	0.74	4 31
25	2 32 36	8 38 51	14 45 5	20 51 20	0.25	1 32	0.75	4 35
26	2 38 42	8 44 57	14 51 11	20 57 26	0.26	1 35	0.76	4 38
27	2 44 49	8 51 3	14 57 18	21 3 32	0.27	1 39	0.77	4 42
28	2 50 55	8 57 9	15 3 24	21 9 38	0.28	1 43	0.78	4 46
29	2 57 1	9 3 16	15 9 30	21 15 45	0.29	1 46	0.79	4 49
30	3 3 7	9 9 22	15 15 36	21 21 51	0.30	1 50	0.80	4 53
31	3 9 14	9 15 28	15 21 43	21 27 57	0.31	1 54	0.81	4 57
32	3 15 20	9 21 34	15 27 49	21 34 3	0.32	1 57	0.82	5 0
33	3 21 26	9 27 41	15 33 55	21 40 10	0.33	2 1	0.83	5 4
34	3 27 32	9 33 47	15 40 1	21 46 16	0.34	2 5	0.84	5 8
35	3 33 38	9 39 53	15 46 8	21 52 22	0.35	2 8	0.85	5 11
36	3 39 45	9 45 59	15 52 14	21 58 28	0.36	2 12	0.86	5 15
37	3 45 51	9 52 5	15 58 20	22 4 35	0.37	2 16	0.87	5 19
38	3 51 57	9 58 12	16 4 26	22 10 41	0.38	2 19	0.88	5 22
39	3 58 3	10 4 18	16 10 33	22 16 47	0.39	2 23	0.89	5 26
40	4 4 10	10 10 24	16 16 39	22 22 53	0.40	2 26	0.90	5 30
41	4 10 16	10 16 30	16 22 45	22 29 0	0.41	2 30	0.91	5 33
42	4 16 22	10 22 37	16 28 51	22 35 6	0.42	2 34	0.92	5 37
43	4 22 28	10 28 43	16 34 57	22 41 12	0.43	2 37	0.93	5 41
44	4 28 35	10 34 49	16 41 4	22 47 18	0.44	2 41	0.94	5 44
45	4 34 41	10 40 55	16 47 10	22 53 24	0.45	2 45	0.95	5 48
46	4 40 47	10 47 2	16 53 16	22 59 31	0.46	2 48	0.96	5 52
47	4 46 53	10 53 8	16 59 22	23 5 37	0.47	2 52	0.97	5 55
48	4 53 0	10 59 14	17 5 29	23 11 43	0.48	2 56	0.98	5 59
49	4 59 6	11 5 20	17 11 35	23 17 49	0.49	2 59	0.99	6 3
50	5 5 12	11 11 27	17 17 41	23 23 56	0.50	3 3	1.00	6 6
51	5 11 18	11 17 33	17 23 47	23 30 2				
52	5 17 25	11 23 39	17 29 54	23 36 8				
53	5 23 31	11 29 45	17 36 0	23 42 14				
54	5 29 37	11 35 52	17 42 6	23 48 21				
55	5 35 43	11 41 58	17 48 12	23 54 27				
56	5 41 50	11 48 4	17 54 19	24 0 33				
57	5 47 56	11 54 10	18 0 25	24 6 39				
58	5 54 2	12 0 17	18 6 31	24 12 46				
59	6 0 8	12 6 23	18 12 37	24 18 52				

Die Reduktion ist von der Sternzeit zu subtrahieren.

Verwandlung von mittlerer Zeit in Sternzeit

Red.	0m			1m			2m			3m			Red.
s	h	m	s	h	m	s	h	m	s	h	m	s	s
0	0	0	0.0	6	5	14.5	12	10	29.1	18	15	43.6	0
1		6	5.2		11	19.8		16	34.3		21	48.8	1
2		12	10.5		17	25.0		22	39.6		27	54.1	2
3		18	15.7		23	30.3		28	44.8		33	59.3	3
4		24	21.0		29	35.5		34	50.0		40	4.6	4
5		30	26.2		35	40.7		40	55.3		46	9.8	5
6		36	31.5		41	46.0		47	0.5		52	15.1	6
7		42	36.7		47	51.2		53	5.8	18	58	20.3	7
8		48	41.9	6	53	56.5	12	59	11.0	19	4	25.5	8
9	0	54	47.2	7	0	1.7	13	5	16.2		10	30.8	9
10	1	0	52.4		6	7.0		11	21.5		16	36.0	10
11		6	57.7		12	12.2		17	26.7		22	41.3	11
12		13	2.9		18	17.4		23	32.0		28	46.5	12
13		19	8.1		24	22.7		29	37.2		34	51.8	13
14		25	13.4		30	27.9		35	42.5		40	57.0	14
15		31	18.6		36	33.2		41	47.7		47	2.2	15
16		37	23.9		42	38.4		47	52.9		53	7.5	16
17		43	29.1		48	43.7	13	53	58.2	19	59	12.7	17
18		49	34.4	7	54	48.9	14	0	3.4	20	5	18.0	18
19	1	55	39.6	8	0	54.1		6	8.7		11	23.2	19
20	2	1	44.8		6	59.4		12	13.9		17	28.4	20
21		7	50.1		13	4.6		18	19.2		23	33.7	21
22		13	55.3		19	9.9		24	24.4		29	38.9	22
23		20	0.6		25	15.1		30	29.6		35	44.2	23
24		26	5.8		31	20.3		36	34.9		41	49.4	24
25		32	11.1		37	25.6		42	40.1		47	54.7	25
26		38	16.3		43	30.8		48	45.4	20	53	59.9	26
27		44	21.5		49	36.1	14	54	50.6	21	0	5.1	27
28		50	26.8	8	55	41.3	15	0	55.9		6	10.4	28
29	2	56	32.0	9	1	46.6		7	1.1		12	15.6	29
30	3	2	37.3		7	51.8		13	6.3		18	20.9	30
31		8	42.5		13	57.0		19	11.6		24	26.1	31
32		14	47.8		20	2.3		25	16.8		30	31.4	32
33		20	53.0		26	7.5		31	22.1		36	36.6	33
34		26	58.2		32	12.8		37	27.3		42	41.8	34
35		33	3.5		38	18.0		43	32.5		48	47.1	35
36		39	8.7		44	23.3		49	37.8	21	54	52.3	36
37		45	14.0		50	28.5	15	55	43.0	22	0	57.6	37
38		51	19.2	9	56	33.7	16	1	48.3		7	2.8	38
39	3	57	24.4	10	2	39.0		7	53.5		13	8.0	39
40	4	3	29.7		8	44.2		13	58.8		19	13.3	40
41		9	34.9		14	49.5		20	4.0		25	18.5	41
42		15	40.2		20	54.7		26	9.2		31	23.8	42
43		21	45.4		27	0.0		32	14.5		37	29.0	43
44		27	50.7		33	5.2		38	19.7		43	34.3	44
45		33	55.9		39	10.4		44	25.0		49	39.5	45
46		40	1.1		45	15.7		50	30.2	22	55	44.7	46
47		46	6.4		51	20.9	16	56	35.5	23	1	50.0	47
48		52	11.6	10	57	26.2	17	2	40.7		7	55.2	48
49	4	58	16.9	11	3	31.4		8	45.9		14	0.5	49
50	5	4	22.1		9	36.6		14	51.2		20	5.7	50
51		10	27.4		15	41.9		20	56.4		26	11.0	51
52		16	32.6		21	47.1		27	1.7		32	16.2	52
53		22	37.8		27	52.4		33	6.9		38	21.4	53
54		28	43.1		33	57.6		39	12.1		44	26.7	54
55		34	48.3		40	2.9		45	17.4		50	31.9	55
56		40	53.6		46	8.1		51	22.6	23	56	37.2	56
57		46	58.8		52	13.3	17	57	27.9	24	2	42.4	57
58		53	4.0	11	58	18.6	18	3	33.1		8	47.7	58
59	5	59	9.3	12	4	23.8	18	9	38.4	24	14	52.9	59

Red.			Red.		
s	m	s	s	m	s
0.00	0	0.0	0.50	3	2.6
01		3.7	51		6.3
02		7.3	52		9.9
03		11.0	53		13.6
04		14.6	54		17.2
0.05		18.3	0.55		20.9
06		21.9	56		24.5
07		25.6	57		28.2
08		29.2	58		31.8
09		32.9	59		35.5
0.10		36.5	0.60		39.1
11		40.2	61		42.8
12		43.8	62		46.5
13		47.5	63		50.1
14		51.1	64		53.8
0.15		54.8	0.65	3	57.4
16	0	58.4	66	4	1.1
17	1	2.1	67		4.7
18		5.7	68		8.4
19		9.4	69		12.0
0.20		13.0	0.70		15.7
21		16.7	71		19.3
22		20.4	72		23.0
23		24.0	73		26.6
24		27.7	74		30.3
0.25		31.3	0.75		33.9
26		35.0	76		37.6
27		38.6	77		41.2
28		42.3	78		44.9
29		45.9	79		48.5
0.30		49.6	0.80		52.2
31		53.2	81		55.8
32	1	56.9	82	4	59.5
33	2	0.5	83	5	3.2
34		4.2	84		6.8
0.35		7.8	0.85		10.5
36		11.5	86		14.1
37		15.1	87		17.8
38		18.8	88		21.4
39		22.4	89		25.1
0.40		26.1	0.90		28.7
41		29.7	91		32.4
42		33.4	92		36.0
43		37.1	93		39.7
44		40.7	94		43.3
0.45		44.4	0.95		47.0
46		48.0	96		50.6
47		51.7	97		54.3
48		55.3	98	5	57.9
0.49	2	59.0	0.99	6	1.6

Red.		Red.		Red.	
s	s	s	s	s	s
0.000		0.003		0.006	
	0.2		1.3		2.4
001		004		007	
	0.5		1.6		2.7
002		005		008	
	0.9		2.0		3.1
003		006		009	
	1.3		2.4		3.5
0.004		0.007		0.010	
					3.8

Die Reduktion ist zur mittleren Zeit zu addieren.

Verwandlung von Sternzeit in mittlere Zeit

Red.	0m	1m	2m	3m	Red.
s	h m s	h m s	h m s	h m s	s
0	0 0 0.0	6 6 14.5	12 12 29.1	18 18 43.6	0
1	6 6.2	12 20.8	18 35.3	24 49.9	1
2	12 12.5	18 27.0	24 41.6	30 56.1	2
3	18 18.7	24 33.3	30 47.8	37 2.3	3
4	24 25.0	30 39.5	36 54.0	43 8.6	4
5	30 31.2	36 45.7	43 0.3	49 14.8	5
6	36 37.5	42 52.0	49 6.5	18 55 21.1	6
7	42 43.7	48 58.2	12 55 12.8	19 1 27.3	7
8	48 49.9	6 55 4.5	13 1 19.0	7 33.5	8
9	0 54 56.2	7 1 10.7	7 25.3	13 39.8	9
10	1 1 2.4	7 17.0	13 31.5	19 46.0	10
11	7 8.7	13 23.2	19 37.7	25 52.3	11
12	13 14.9	19 29.4	25 44.0	31 58.5	12
13	19 21.1	25 35.7	31 50.2	38 4.8	13
14	25 27.4	31 41.9	37 56.5	44 11.0	14
15	31 33.6	37 48.2	44 2.7	50 17.2	15
16	37 39.9	43 54.4	50 8.9	19 56 23.5	16
17	43 46.1	50 0.7	13 56 15.2	20 2 29.7	17
18	49 52.4	7 56 6.9	14 2 21.4	8 36.0	18
19	1 55 58.6	8 2 13.1	8 27.7	14 42.2	19
20	2 2 4.8	8 19.4	14 33.9	20 48.5	20
21	8 11.1	14 25.6	20 40.2	26 54.7	21
22	14 17.3	20 31.9	26 46.4	33 0.9	22
23	20 23.6	26 38.1	32 52.6	39 7.2	23
24	26 29.8	32 44.4	38 58.9	45 13.4	24
25	32 36.1	38 50.6	45 5.1	51 19.7	25
26	38 42.3	44 56.8	51 11.4	20 57 25.9	26
27	44 48.5	51 3.1	14 57 17.6	21 3 32.2	27
28	50 54.8	8 57 9.3	15 3 23.9	9 38.4	28
29	2 57 1.0	9 3 15.6	9 30.1	15 44.6	29
30	3 3 7.3	9 21.8	15 36.3	21 50.9	30
31	9 13.5	15 28.0	21 42.6	27 57.1	31
32	15 19.8	21 34.3	27 48.8	34 3.4	32
33	21 26.0	27 40.5	33 55.1	40 9.6	33
34	27 32.2	33 46.8	40 1.3	46 15.8	34
35	33 38.5	39 53.0	46 7.6	52 22.1	35
36	39 44.7	45 59.3	52 13.8	21 58 28.3	36
37	45 51.0	52 5.5	15 58 20.0	22 4 34.6	37
38	51 57.2	9 58 11.7	16 4 26.3	10 40.8	38
39	3 58 3.4	10 4 18.0	10 32.5	16 47.1	39
40	4 4 9.7	10 24.2	16 38.8	22 53.3	40
41	10 15.9	16 30.5	22 45.0	28 59.5	41
42	16 22.2	22 36.7	28 51.2	35 5.8	42
43	22 28.4	28 43.0	34 57.5	41 12.0	43
44	28 34.7	34 49.2	41 3.7	47 18.3	44
45	34 40.9	40 55.4	47 10.0	53 24.5	45
46	40 47.1	47 1.7	53 16.2	22 59 30.8	46
47	46 53.4	53 7.9	16 59 22.5	23 5 37.0	47
48	52 59.6	10 59 14.2	17 5 28.7	11 43.2	48
49	4 59 5.9	11 5 20.4	11 34.9	17 49.5	49
50	5 5 12.1	11 26.7	17 41.2	23 55.7	50
51	11 18.4	17 32.9	23 47.4	30 2.0	51
52	17 24.6	23 39.1	29 53.7	36 8.2	52
53	23 30.8	29 45.4	35 59.9	42 14.5	53
54	29 37.1	35 51.6	42 6.2	48 20.7	54
55	35 43.3	41 57.9	48 12.4	23 54 26.9	55
56	41 49.6	48 4.1	17 54 18.6	24 0 33.2	56
57	47 55.8	11 54 10.3	18 0 24.9	6 39.4	57
58	5 54 2.1	12 0 16.6	6 31.1	12 45.7	58
59	6 0 8.3	12 6 22.8	18 12 37.4	24 18 51.9	59

Die Reduktion ist von der Sternzeit zu subtrahieren.

Red.		Red.	
s	m s	s	m s
0.00	0 0.0	0.50	3 3.1
01	3.7	51	6.8
02	7.3	52	10.4
03	11.0	53	14.1
04	14.6	54	17.8
0.05	18.3	0.55	21.4
06	22.0	56	25.1
07	25.6	57	28.8
08	29.3	58	32.4
09	33.0	59	36.1
0.10	36.6	0.60	39.7
11	40.3	61	43.4
12	43.9	62	47.1
13	47.6	63	50.7
14	51.3	64	54.4
0.15	54.9	0.65	3 58.1
16	0 58.6	66	4 1.7
17	1 2.3	67	5.4
18	5.9	68	9.0
19	9.6	69	12.7
0.20	13.2	0.70	16.4
21	16.9	71	20.0
22	20.6	72	23.7
23	24.2	73	27.4
24	27.9	74	31.0
0.25	31.6	0.75	34.7
26	35.2	76	38.3
27	38.9	77	42.0
28	42.5	78	45.7
29	46.2	79	49.3
0.30	49.9	0.80	53.0
31	53.5	81	4 56.7
32	1 57.2	82	5 0.3
33	2 0.9	83	4.0
34	4.5	84	7.6
0.35	8.2	0.85	11.3
36	11.8	86	15.0
37	15.5	87	18.6
38	19.2	88	22.3
39	22.8	89	26.0
0.40	26.5	0.90	29.6
41	30.2	91	33.3
42	33.8	92	36.9
43	37.5	93	40.6
44	41.1	94	44.3
0.45	44.8	0.95	47.9
46	48.5	96	51.6
47	52.1	97	55.3
48	55.8	98	5 58.9
0.49	2 59.5	0.99	6 2.6

Red.		Red.		Red.	
s	s	s	s	s	s
0.000		0.003		0.006	
	0.2		1.3		2.4
001		004		007	
	0.5		1.6		2.7
002		005		008	
	0.9		2.0		3.1
003		006		009	
	1.3		2.4		3.5
0.004		0.007		0.010	
					3.8

m	0^h	1^h	2^h	3^h	4^h	5^h	s	
	d	d	d	d	d	d		d
0	0.000000	0.041667	0.083333	0.125000	0.166667	0.208333	0	0.000000
1	000694	042361	084028	125694	167361	209028	1	000012
2	001389	043056	084722	126389	168056	209722	2	000023
3	002083	043750	085417	127083	168750	210417	3	000035
4	002778	044444	086111	127778	169444	211111	4	000046
5	0.003472	0.045139	0.086806	0.128472	0.170139	0.211806	5	0.000058
6	004167	045833	087500	129167	170833	212500	6	000069
7	004861	046528	088194	129861	171528	213194	7	000081
8	005556	047222	088889	130556	172222	213889	8	000093
9	006250	047917	089583	131250	172917	214583	9	000104
10	0.006944	0.048611	0.090278	0.131944	0.173611	0.215278	10	0.000116
11	007639	049306	090972	132639	174306	215972	11	000127
12	008333	050000	091667	133333	175000	216667	12	000139
13	009028	050694	092361	134028	175694	217361	13	000150
14	009722	051389	093056	134722	176389	218056	14	000162
15	0.010417	0.052083	0.093750	0.135417	0.177083	0.218750	15	0.000174
16	011111	052778	094444	136111	177778	219444	16	000185
17	011806	053472	095139	136806	178472	220139	17	000197
18	012500	054167	095833	137500	179167	220833	18	000208
19	013194	054861	096528	138194	179861	221528	19	000220
20	0.013889	0.055556	0.097222	0.138889	0.180556	0.222222	20	0.000231
21	014583	056250	097917	139583	181250	222917	21	000243
22	015278	056944	098611	140278	181944	223611	22	000255
23	015972	057639	099306	140972	182639	224306	23	000266
24	016667	058333	100000	141667	183333	225000	24	000278
25	0.017361	0.059028	0.100694	0.142361	0.184028	0.225694	25	0.000289
26	018056	059722	101389	143056	184722	226389	26	000301
27	018750	060417	102083	143750	185417	227083	27	000313
28	019444	061111	102778	144444	186111	227778	28	000324
29	020139	061806	103472	145139	186806	228472	29	000336
30	0.020833	0.062500	0.104167	0.145833	0.187500	0.229167	30	0.000347
31	021528	063194	104861	146528	188194	229861	31	000359
32	022222	063889	105556	147222	188889	230556	32	000370
33	022917	064583	106250	147917	189583	231250	33	000382
34	023611	065278	106944	148611	190278	231944	34	000394
35	0.024306	0.065972	0.107639	0.149306	0.190972	0.232639	35	0.000405
36	025000	066667	108333	150000	191667	233333	36	000417
37	025694	067361	109028	150694	192361	234028	37	000428
38	026389	068056	109722	151389	193056	234722	38	000440
39	027083	068750	110417	152083	193750	235417	39	000451
40	0.027778	0.069444	0.111111	0.152778	0.194444	0.236111	40	0.000463
41	028472	070139	111806	153472	195139	236806	41	000475
42	029167	070833	112500	154167	195833	237500	42	000486
43	029861	071528	113194	154861	196528	238194	43	000498
44	030556	072222	113889	155556	197222	238889	44	000509
45	0.031250	0.072917	0.114583	0.156250	0.197917	0.239583	45	0.000521
46	031944	073611	115278	156944	198611	240278	46	000532
47	032639	074306	115972	157639	199306	240972	47	000544
48	033333	075000	116667	158333	200000	241667	48	000556
49	034028	075694	117361	159028	200694	242361	49	000567
50	0.034722	0.076389	0.118056	0.159722	0.201389	0.243056	50	0.000579
51	035417	077083	118750	160417	202083	243750	51	000590
52	036111	077778	119444	161111	202778	244444	52	000602
53	036806	078472	120139	161806	203472	245139	53	000613
54	037500	079167	120833	162500	204167	245833	54	000625
55	0.038194	0.079861	0.121528	0.163194	0.204861	0.246528	55	0.000637
56	038889	080556	122222	163889	205556	247222	56	000648
57	039583	081250	122917	164583	206250	247917	57	000660
58	040278	081944	123611	165278	206944	248611	58	000671
59	0.040972	0.082639	0.124306	0.165972	0.207639	0.249306	59	0.000683

	6^h	7^h	8^h	9^h	10^h	11^h		
m	d	d	d	d	d	d	s	d
0	0.250000	0.291667	0.333333	0.375000	0.416667	0.458333	0	0.000000
1	250694	292361	334028	375694	417361	459028	1	000012
2	251389	293056	334722	376389	418056	459722	2	000023
3	252083	293750	335417	377083	418750	460417	3	000035
4	252778	294444	336111	377778	419444	461111	4	000046
5	0.253472	0.295139	0.336806	0.378472	0.420139	0.461806	5	0.000058
6	254167	295833	337500	379167	420833	462500	6	000069
7	254861	296528	338194	379861	421528	463194	7	000081
8	255556	297222	338889	380556	422222	463889	8	000093
9	256250	297917	339583	381250	422917	464583	9	000104
10	0.256944	0.298611	0.340278	0.381944	0.423611	0.465278	10	0.000116
11	257639	299306	340972	382639	424306	465972	11	000127
12	258333	300000	341667	383333	425000	466667	12	000139
13	259028	300694	342361	384028	425694	467361	13	000150
14	259722	301389	343056	384722	426389	468056	14	000162
15	0.260417	0.302083	0.343750	0.385417	0.427083	0.468750	15	0.000174
16	261111	302778	344444	386111	427778	469444	16	000185
17	261806	303472	345139	386806	428472	470139	17	000197
18	262500	304167	345833	387500	429167	470833	18	000208
19	263194	304861	346528	388194	429861	471528	19	000220
20	0.263889	0.305556	0.347222	0.388889	0.430556	0.472222	20	0.000231
21	264583	306250	347917	389583	431250	472917	21	000243
22	265278	306944	348611	390278	431944	473611	22	000255
23	265972	307639	349306	390972	432639	474306	23	000266
24	266667	308333	350000	391667	433333	475000	24	000278
25	0.267361	0.309028	0.350694	0.392361	0.434028	0.475694	25	0.000289
26	268056	309722	351389	393056	434722	476389	26	000301
27	268750	310417	352083	393750	435417	477083	27	000313
28	269444	311111	352778	394444	436111	477778	28	000324
29	270139	311806	353472	395139	436806	478472	29	000336
30	0.270833	0.312500	0.354167	0.395833	0.437500	0.479167	30	0.000347
31	271528	313194	354861	396528	438194	479861	31	000359
32	272222	313889	355556	397222	438889	480556	32	000370
33	272917	314583	356250	397917	439583	481250	33	000382
34	273611	315278	356944	398611	440278	481944	34	000394
35	0.274306	0.315972	0.357639	0.399306	0.440972	0.482639	35	0.000405
36	275000	316667	358333	400000	441667	483333	36	000417
37	275694	317361	359028	400694	442361	484028	37	000428
38	276389	318056	359722	401389	443056	484722	38	000440
39	277083	318750	360417	402083	443750	485417	39	000451
40	0.277778	0.319444	0.361111	0.402778	0.444444	0.486111	40	0.000463
41	278472	320139	361806	403472	445139	486806	41	000475
42	279167	320833	362500	404167	445833	487500	42	000486
43	279861	321528	363194	404861	446528	488194	43	000498
44	280556	322222	363889	405556	447222	488889	44	000509
45	0.281250	0.322917	0.364583	0.406250	0.447917	0.489583	45	0.000521
46	281944	323611	365278	406944	448611	490278	46	000532
47	282639	324306	365972	407639	449306	490972	47	000544
48	283333	325000	366667	408333	450000	491667	48	000556
49	284028	325694	367361	409028	450694	492361	49	000567
50	0.284722	0.326389	0.368056	0.409722	0.451389	0.493056	50	0.000579
51	285417	327083	368750	410417	452083	493750	51	000590
52	286111	327778	369444	411111	452778	494444	52	000602
53	286806	328472	370139	411806	453472	495139	53	000613
54	287500	329167	370833	412500	454167	495833	54	000625
55	0.288194	0.329861	0.371528	0.413194	0.454861	0.496528	55	0.000637
56	288889	330556	372222	413889	455556	497222	56	000648
57	289583	331250	372917	414583	456250	497917	57	000660
58	290278	331944	373611	415278	456944	498611	58	000671
59	0.290972	0.332639	0.374306	0.415972	0.457639	0.499306	59	0.000683

I. Anzahl der am o. Januar, 12^h Welt-Zeit, seit Anfang der Periode verflossenen Tage

Jahr n. Chr.	0	100	200	300	400	500	600	700	800	900
	17	17	17	18	18	19	19	19	20	20
0	21057	57582	94107	30632	67157	03682	40207	76732	13257	49782
4	22518	59043	95568	32093	68618	05143	41668	78193	14718	51243
8	23979	60504	97029	33554	70079	06604	43129	79654	16179	52704
12	25440	61965	98490	35015	71540	08065	44590	81115	17640	54165
16	26901	63426	99951	36476	73001	09526	46051	82576	19101	55626
20	28362	64887	01412	37937	74462	10987	47512	84037	20562	57087
24	29823	66348	02873	39398	75923	12448	48973	85498	22023	58548
28	31284	67809	04334	40859	77384	13909	50434	86959	23484	60009
32	32745	69270	05795	42320	78845	15370	51895	88420	24945	61470
36	34206	70731	07256	43781	80306	16831	53356	89881	26406	62931
40	35667	72192	08717	45242	81767	18292	54817	91342	27867	64392
44	37128	73653	10178	46703	83228	19753	56278	92803	29328	65853
48	38589	75114	11639	48164	84689	21214	57739	94264	30789	67314
52	40050	76575	13100	49625	86150	22675	59200	95725	32250	68775
56	41511	78036	14561	51086	87611	24136	60661	97186	33711	70236
60	42972	79497	16022	52547	89072	25597	62122	98647	35172	71697
64	44433	80958	17483	54008	90533	27058	63583	00108	36633	73158
68	45894	82419	18944	55469	91994	28519	65044	01569	38094	74619
72	47355	83880	20405	56930	93455	29980	66505	03030	39555	76080
76	48816	85341	21866	58391	94916	31441	67966	04491	41016	77541
80	50277	86802	23327	59852	96377	32902	69427	05952	42477	79002
84	51738	88263	24788	61313	97838	34363	70888	07413	43938	80463
88	53199	89724	26249	62774	99299	35824	72349	08874	45399	81924
92	54660	91185	27710	64235	00760	37285	73810	10335	46860	83385
96	56121	92646	29171	65696	02221	38746	75271	11796	48321	84846
100	57582	94107	30632	67157	03682	40207	76732	13257	49782	86307
	17	17	18	18	19	19	19	20	20	20

Ia. Anzahl der am o. eines jeden Monats, 12^h Welt-Zeit, seit Beginn der Schaltperiode verflossenen Tage

Jahr	Jan. o	Febr. o	März o	April o	Mai o	Juni o	Juli o	Aug. o	Sept. o	Okt. o	Nov. o	Dez. o
0	0	31	60	91	121	152	182	213	244	274	305	335
1	366	397	425	456	486	517	547	578	609	639	670	700
2	731	762	790	821	851	882	912	943	974	1004	1035	1065
3	1096	1127	1155	1186	1216	1247	1277	1308	1339	1369	1400	1430

I. Anzahl der am 0. Januar, 12^h Welt-Zeit, seit Anfang der Periode verflossenen Tage

Jahr n. Chr.	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
	20	21	21	21	22	22	23	23	23	24
0	86307	22832	59357	95882	32407	68932	05447	41971[1]	78495[1]	15019[1]
4	87768	24293	60818	97343	33868	70393	06908	43432	79956	16480
8	89229	25754	62279	98804	35329	71854	08369	44893	81417	17941
12	90690	27215	63740	00265	36790	73315	09830	46354	82878	19402
16	92151	28676	65201	01726	38251	74776	11291	47815	84339	20863
20	93612	30137	66662	03187	39712	76237	12752	49276	85800	22324
24	95073	31598	68123	04648	41173	77698	14213	50737	87261	23785
28	96534	33059	69584	06109	42634	79159	15674	52198	88722	25246
32	97995	34520	71045	07570	44095	80620	17135	53659	90183	26707
36	99456	35981	72506	09031	45556	82081	18596	55120	91644	28168
40	00917	37442	73967	10492	47017	83542	20057	56581	93105	29629
44	02378	38903	75428	11953	48478	85003	21518	58042	94566	31090
48	03839	40364	76889	13414	49939	86464	22979	59503	96027	32551
52	05300	41825	78350	14875	51400	87925	24440	60964	97488	34012
56	06761	43286	79811	16336	52861	89386	25901	62425	98949	35473
60	08222	44747	81272	17797	54322	90847	27362	63886	00410	36934
64	09683	46208	82733	19258	55783	92308	28823	65347	01871	38395
68	11144	47669	84194	20719	57244	93769	30284	66808	03332	39856
72	12605	49130	85655	22180	58705	95230	31745	68269	04793	41317
76	14066	50591	87116	23641	60166	96691	33206	69730	06254	42778
80	15527	52052	88577	25102	61627	98152	34667	71191	07715	44239
84	16988	53513	90038	26563	63088	99603	36128	72652	09176	45700
88	18449	54974	91499	28024	64549	01064	37589	74113	10637	47161
92	19910	56435	92960	29485	66010	02525	39050	75574	12098	48622
96	21371	57896	94421	30946	67471	03986	40511	77035	13559	50083
100	22832	59357	95882	32407	68932	05447	41971[1]	78495[1]	15019[1]	51544
	21	21	21	22	22	23	23	23	24	24

[1]) Die Zahlen geben die am —1. Jan. seit Anfang der Periode verflossenen Tage.

Ia. Anzahl der am 0. eines jeden Monats, 12^h Welt-Zeit, seit Beginn der Schaltperiode verflossenen Tage

Jahr	Jan. 0	Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
0	0[2])	31[2])	60	91	121	152	182	213	244	274	305	335
1	366	397	425	456	486	517	547	578	609	639	670	700
2	731	762	790	821	851	882	912	943	974	1004	1035	1065
3	1096	1127	1155	1186	1216	1247	1277	1308	1339	1369	1400	1430

Von 1582 Okt. 15 bis 1583 Dez. 31 sind die Zahlen der Tafel Ia um 10 zu verkleinern.

[2]) In den Jahren 1700, 1800, 1900 um 1 zu vergrößern.

Julianische Periode

II. Anzahl der am 0. eines jeden Monats, 12ʰ Welt-Zeit, seit Beginn der Periode verflossenen Tage

Jahr n. Chr.	Januar 0		Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
1860	2400	410	441	470	501	531	562	592	623	654	684	715	745
1861		776	807	835	866	896	927	957	988	*019	*049	*080	*110
1862	2401	141	172	200	231	261	292	322	353	384	414	445	475
1863		506	537	565	596	626	657	687	718	749	779	810	840
1864		871	902	931	962	992	*023	*053	*084	*115	*145	*176	*206
1865	2402	237	268	296	327	357	388	418	449	480	510	541	571
1866		602	633	661	692	722	753	783	814	845	875	906	936
1867		967	998	*026	*057	*087	*118	*148	*179	*210	*240	*271	*301
1868	2403	332	363	392	423	453	484	514	545	576	606	637	667
1869		698	729	757	788	818	849	879	910	941	971	*002	*032
1870	2404	063	094	122	153	183	214	244	275	306	336	367	397
1871		428	459	487	518	548	579	609	640	671	701	732	762
1872		793	824	853	884	914	945	975	*006	*037	*067	*098	*128
1873	2405	159	190	218	249	279	310	340	371	402	432	463	493
1874		524	555	583	614	644	675	705	736	767	797	828	858
1875		889	920	948	979	*009	*040	*070	*101	*132	*162	*193	*223
1876	2406	254	285	314	345	375	406	436	467	498	528	559	589
1877		620	651	679	710	740	771	801	832	863	893	924	954
1878		985	*016	*044	*075	*105	*136	*166	*197	*228	*258	*289	*319
1879	2407	350	381	409	440	470	501	531	562	593	623	654	684
1880		715	746	775	806	836	867	897	928	959	989	*020	*050
1881	2408	081	112	140	171	201	232	262	293	324	354	385	415
1882		446	477	505	536	566	597	627	658	689	719	750	780
1883		811	842	870	901	931	962	992	*023	*054	*084	*115	*145
1884	2409	176	207	236	267	297	328	358	389	420	450	481	511
1885		542	573	601	632	662	693	723	754	785	815	846	876
1886		907	938	966	997	*027	*058	*088	*119	*150	*180	*211	*241
1887	2410	272	303	331	362	392	423	453	484	515	545	576	606
1888		637	668	697	728	758	789	819	850	881	911	942	972
1889	2411	003	034	062	093	123	154	184	215	246	276	307	337
1890		368	399	427	458	488	519	549	580	611	641	672	702
1891		733	764	792	823	853	884	914	945	976	*006	*037	*067
1892	2412	098	129	158	189	219	250	280	311	342	372	403	433
1893		464	495	523	554	584	615	645	676	707	737	768	798
1894		829	860	888	919	949	980	*010	*041	*072	*102	*133	*163
1895	2413	194	225	253	284	314	345	375	406	437	467	498	528
1896		559	590	619	650	680	711	741	772	803	833	864	894
1897		925	956	984	*015	*045	*076	*106	*137	*168	*198	*229	*259
1898	2414	290	321	349	380	410	441	471	502	533	563	594	624
1899		655	686	714	745	775	806	836	867	898	928	959	989

Julianische Periode

II. Anzahl der am o. eines jeden Monats, 12^h Welt-Zeit, seit Beginn der Periode verflossenen Tage

Jahr n. Chr.	Januar o	Febr. o	März o	April o	Mai o	Juni o	Juli o	Aug. o	Sept. o	Okt. o	Nov. o	Dez. o
1900	2415 020	051	079	110	140	171	201	232	263	293	324	354
1901	385	416	444	475	505	536	566	597	628	658	689	719
1902	750	781	809	840	870	901	931	962	993	*023	*054	*084
1903	2416 115	146	174	205	235	266	296	327	358	388	419	449
1904	480	511	540	571	601	632	662	693	724	754	785	815
1905	846	877	905	936	966	997	*027	*058	*089	*119	*150	*180
1906	2417 211	242	270	301	331	362	392	423	454	484	515	545
1907	576	607	635	666	696	727	757	788	819	849	880	910
1908	941	972	*001	*032	*062	*093	*123	*154	*185	*215	*246	*276
1909	2418 307	338	366	397	427	458	488	519	550	580	611	641
1910	672	703	731	762	792	823	853	884	915	945	976	*006
1911	2419 037	068	096	127	157	188	218	249	280	310	341	371
1912	402	433	462	493	523	554	584	615	646	676	707	737
1913	768	799	827	858	888	919	949	980	*011	*041	*072	*102
1914	2420 133	164	192	223	253	284	314	345	376	406	437	467
1915	498	529	557	588	618	649	679	710	741	771	802	832
1916	863	894	923	954	984	*015	*045	*076	*107	*137	*168	*198
1917	2421 229	260	288	319	349	380	410	441	472	502	533	563
1918	594	625	653	684	714	745	775	806	837	867	898	928
1919	959	990	*018	*049	*079	*110	*140	*171	*202	*232	*263	*293
1920	2422 324	355	384	415	445	476	506	537	568	598	629	659
1921	690	721	749	780	810	841	871	902	933	963	994	*024
1922	2423 055	086	114	145	175	206	236	267	298	328	359	389
1923	420	451	479	510	540	571	601	632	663	693	724	754
1924	785	816	845	876	906	937	967	998	*029	*059	*090	*120
1925	2424 151	182	210	241	271	302	332	363	394	424	455	485
1926	516	547	575	606	636	667	697	728	759	789	820	850
1927	881	912	940	971	*001	*032	*062	*093	*124	*154	*185	*215
1928	2425 246	277	306	337	367	398	428	459	490	520	551	581
1929	612	643	671	702	732	763	793	824	855	885	916	946
1930	977	*008	*036	*067	*097	*128	*158	*189	*220	*250	*281	*311
1931	2426 342	373	401	432	462	493	523	554	585	615	646	676
1932	707	738	767	798	828	859	889	920	951	981	*012	*042
1933	2427 073	104	132	163	193	224	254	285	316	346	377	407
1934	438	469	497	528	558	589	619	650	681	711	742	772
1935	803	834	862	893	923	954	984	*015	*046	*076	*107	*137
1936	2428 168	199	228	259	289	320	350	381	412	442	473	503
1937	534	565	593	624	654	685	715	746	777	807	838	868
1938	899	930	958	989	*019	*050	*080	*111	*142	*172	*203	*233
1939	2429 264	295	323	354	384	415	445	476	507	537	568	598

Julianische Periode

II. Anzahl der am 0. eines jeden Monats, 12^h Welt-Zeit, seit Beginn der Periode verflossenen Tage

Jahr n. Chr.	Januar 0	Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
1940	2429 629	660	689	720	750	781	811	842	873	903	934	964
1941	995	*026	*054	*085	*115	*146	*176	*207	*238	*268	*299	*329
1942	2430 360	391	419	450	480	511	541	572	603	633	664	694
1943	725	756	784	815	845	876	906	937	968	998	*029	*059
1944	2431 090	121	150	181	211	242	272	303	334	364	395	425
1945	456	487	515	546	576	607	637	668	699	729	760	790
1946	821	852	880	911	941	972	*002	*033	*064	*094	*125	*155
1947	2432 186	217	245	276	306	337	367	398	429	459	490	520
1948	551	582	611	642	672	703	733	764	795	825	856	886
1949	917	948	976	*007	*037	*068	*098	*129	*160	*190	*221	*251
1950	2433 282	313	341	372	402	433	463	494	525	555	586	616
1951	647	678	706	737	767	798	828	859	890	920	951	981
1952	2434 012	043	072	103	133	164	194	225	256	286	317	347
1953	378	409	437	468	498	529	559	590	621	651	682	712
1954	743	774	802	833	863	894	924	955	986	*016	*047	*077
1955	2435 108	139	167	198	228	259	289	320	351	381	412	442
1956	473	504	533	564	594	625	655	686	717	747	778	808
1957	839	870	898	929	959	990	*020	*051	*082	*112	*143	*173
1958	2436 204	235	263	294	324	355	385	416	447	477	508	538
1959	569	600	628	659	689	720	750	781	812	842	873	903
1960	934	965	994	*025	*055	*086	*116	*147	*178	*208	*239	*269
1961	2437 300	331	359	390	420	451	481	512	543	573	604	634
1962	665	696	724	755	785	816	846	877	908	938	969	999
1963	2438 030	061	089	120	150	181	211	242	273	303	334	364
1964	395	426	455	486	516	547	577	608	639	669	700	730
1965	761	792	820	851	881	912	942	973	*004	*034	*065	*095
1966	2439 126	157	185	216	246	277	307	338	369	399	430	460
1967	491	522	550	581	611	642	672	703	734	764	795	825
1968	856	887	916	947	977	*008	*038	*069	*100	*130	*161	*191
1969	2440 222	253	281	312	342	373	403	434	465	495	526	556
1970	587	618	646	677	707	738	768	799	830	860	891	921
1971	952	983	*011	*042	*072	*103	*133	*164	*195	*225	*256	*286
1972	2441 317	348	377	408	438	469	499	530	561	591	622	652
1973	683	714	742	773	803	834	864	895	926	956	987	*017
1974	2442 048	079	107	138	168	199	229	260	291	321	352	382
1975	413	444	472	503	533	564	594	625	656	686	717	747
1976	778	809	838	869	899	930	960	991	*022	*052	*083	*113
1977	2443 144	175	203	234	264	295	325	356	387	417	448	478
1978	509	540	568	599	629	660	690	721	752	782	813	843
1979	2443 874	905	933	964	994	*025	*055	*086	*117	*147	*178	*208

′ ″	°	′ ″	°	″	°	″	°
0 0.0	0.000	3 0.0	0.050	0.000	0.00000	1.800	0.00050
3.6	01	3.6	51	036	01	836	51
7.2	02	7.2	52	072	02	872	52
10.8	03	10.8	53	108	03	908	53
14.4	04	14.4	54	144	04	944	54
0 18.0	0.005	3 18.0	0.055	0.180	0.00005	1.980	0.00055
21.6	06	21.6	56	216	06	2.016	56
25.2	07	25.2	57	252	07	052	57
28.8	08	28.8	58	288	08	088	58
32.4	09	32.4	59	324	09	124	59
0 36.0	0.010	3 36.0	0.060	0.360	0.00010	2.160	0.00060
39.6	11	39.6	61	396	11	196	61
43.2	12	43.2	62	432	12	232	62
46.8	13	46.8	63	468	13	268	63
50.4	14	50.4	64	504	14	304	64
54.0	0.015	54.0	0.065	0.540	0.00015	2.340	0.00065
0 57.6	16	3 57.6	66	576	16	376	66
1 1.2	17	4 1.2	67	612	17	412	67
4.8	18	4.8	68	648	18	448	68
8.4	19	8.4	69	684	19	484	69
1 12.0	0.020	4 12.0	0.070	0.720	0.00020	2.520	0.00070
15.6	21	15.6	71	756	21	556	71
19.2	22	19.2	72	792	22	592	72
22.8	23	22.8	73	828	23	628	73
26.4	24	26.4	74	864	24	664	74
1 30.0	0.025	4 30.0	0.075	0.900	0.00025	2.700	0.00075
33.6	26	33.6	76	936	26	736	76
37.2	27	37.2	77	0.972	27	772	77
40.8	28	40.8	78	1.008	28	808	78
44.4	29	44.4	79	044	29	844	79
1 48.0	0.030	4 48.0	0.080	1.080	0.00030	2.880	0.00080
51.6	31	51.6	81	116	31	916	81
55.2	32	55.2	82	152	32	952	82
1 58.8	33	4 58.8	83	188	33	2.988	83
2 2.4	34	5 2.4	84	224	34	3.024	84
6.0	0.035	6.0	0.085	1.260	0.00035	060	0.00085
9.6	36	9.6	86	296	36	096	86
13.2	37	13.2	87	332	37	132	87
16.8	38	16.8	88	368	38	168	88
20.4	39	20.4	89	404	39	204	89
2 24.0	0.040	5 24.0	0.090	1.440	0.00040	3.240	0.00090
27.6	41	27.6	91	476	41	276	91
31.2	42	31.2	92	512	42	312	92
34.8	43	34.8	93	548	43	348	93
38.4	44	38.4	94	584	44	384	94
2 42.0	0.045	5 42.0	0.095	1.620	0.00045	3.420	0.00095
45.6	46	45.6	96	656	46	456	96
49.2	47	49.2	97	692	47	492	97
52.8	48	52.8	98	728	48	528	98
2 56.4	49	5 56.4	99	764	49	564	99
3 0.0	0.050	6 0.0	0.100	1.800	0.00050	3.600	0.00100

Halber Tagbogen

δ \ φ	+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
°	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
−30	4 45.4	4 38.8	4 31.8	4 24.4	4 16.5	4 8.1	3 58.9	3 48.9	3 37.9	3 25.7	3 11.8
29	4 48.6	4 42.3	4 35.6	4 28.6	4 21.1	4 13.0	4 4.3	3 54.9	3 44.5	3 33.0	3 20.1
28	4 51.7	4 45.7	4 39.3	4 32.6	4 25.5	4 17.8	4 9.6	4 0.7	3 50.9	3 40.1	3 28.0
27	4 54.7	4 49.0	4 42.9	4 36.5	4 29.8	4 22.5	4 14.7	4 6.2	3 57.0	3 46.9	3 35.5
26	4 57.7	4 52.2	4 46.5	4 40.4	4 33.9	4 27.1	4 19.7	4 11.7	4 3.0	3 53.4	3 42.8
25	5 0.6	4 55.4	4 49.9	4 44.2	4 38.0	4 31.5	4 24.5	4 16.9	4 8.7	3 59.7	3 49.7
24	5 3.5	4 58.5	4 53.3	4 47.8	4 42.0	4 35.8	4 29.2	4 22.0	4 14.3	4 5.8	3 56.5
23	5 6.3	5 1.6	4 56.6	4 51.4	4 45.9	4 40.1	4 33.8	4 27.0	4 19.7	4 11.8	4 3.0
22	5 9.0	5 4.6	4 59.9	4 55.0	4 49.7	4 44.2	4 38.3	4 31.9	4 25.0	4 17.5	4 9.3
21	5 11.7	5 7.5	5 3.1	4 58.4	4 53.5	4 48.3	4 42.7	4 36.7	4 30.2	4 23.2	4 15.4
−20	5 14.4	5 10.4	5 6.2	5 1.8	4 57.2	4 52.3	4 47.0	4 41.3	4 35.3	4 28.7	4 21.4
19	5 17.0	5 13.3	5 9.3	5 5.2	5 0.8	4 56.2	4 51.2	4 45.9	4 40.2	4 34.0	4 27.3
18	5 19.6	5 16.1	5 12.4	5 8.5	5 4.4	5 0.0	4 55.4	4 50.4	4 45.1	4 39.3	4 33.0
17	5 22.2	5 18.9	5 15.4	5 11.7	5 7.9	5 3.8	4 59.5	4 54.9	4 49.9	4 44.5	4 38.6
16	5 24.7	5 21.6	5 18.4	5 14.9	5 11.4	5 7.5	5 3.5	4 59.2	4 54.6	4 49.5	4 44.1
15	5 27.2	5 24.3	5 21.3	5 18.1	5 14.8	5 11.2	5 7.5	5 3.5	4 59.2	4 54.5	4 49.5
14	5 29.7	5 27.0	5 24.2	5 21.3	5 18.2	5 14.9	5 11.4	5 7.7	5 3.7	4 59.5	4 54.8
13	5 32.1	5 29.7	5 27.1	5 24.4	5 21.5	5 18.5	5 15.3	5 11.9	5 8.2	5 4.3	5 0.0
12	5 34.6	5 32.3	5 29.9	5 27.4	5 24.8	5 22.1	5 19.1	5 16.0	5 12.6	5 9.0	5 5.1
11	5 37.0	5 34.9	5 32.7	5 30.5	5 28.1	5 25.6	5 22.9	5 20.1	5 17.0	5 13.7	5 10.2
−10	5 39.4	5 37.5	5 35.5	5 33.5	5 31.3	5 29.1	5 26.7	5 24.1	5 21.4	5 18.4	5 15.2
9	5 41.7	5 40.1	5 38.3	5 36.5	5 34.6	5 32.5	5 30.4	5 28.1	5 25.7	5 23.0	5 20.2
8	5 44.1	5 42.6	5 41.1	5 39.5	5 37.8	5 36.0	5 34.1	5 32.1	5 29.9	5 27.6	5 25.1
7	5 46.4	5 45.2	5 43.8	5 42.4	5 41.0	5 39.4	5 37.8	5 36.0	5 34.2	5 32.2	5 30.0
6	5 48.8	5 47.7	5 46.6	5 45.4	5 44.1	5 42.8	5 41.4	5 40.0	5 38.4	5 36.7	5 34.9
5	5 51.1	5 50.2	5 49.3	5 48.3	5 47.3	5 46.2	5 45.1	5 43.9	5 42.6	5 41.2	5 39.7
4	5 53.4	5 52.7	5 52.0	5 51.2	5 50.4	5 49.6	5 48.7	5 47.8	5 46.8	5 45.7	5 44.5
3	5 55.8	5 55.2	5 54.7	5 54.1	5 53.6	5 53.0	5 52.3	5 51.6	5 50.9	5 50.1	5 49.3
2	5 58.1	5 57.7	5 57.4	5 57.1	5 56.7	5 56.3	5 55.9	5 55.5	5 55.1	5 54.6	5 54.1
− 1	6 0.4	6 0.2	6 0.1	6 0.0	5 59.8	5 59.7	5 59.5	5 59.4	5 59.2	5 59.0	5 58.9
0	6 2.7	6 2.7	6 2.8	6 2.9	6 2.9	6 3.0	6 3.1	6 3.2	6 3.4	6 3.5	6 3.6
+ 1	6 5.0	6 5.2	6 5.5	6 5.8	6 6.1	6 6.4	6 6.7	6 7.1	6 7.5	6 7.9	6 8.4
2	6 7.3	6 7.7	6 8.2	6 8.7	6 9.2	6 9.8	6 10.3	6 11.0	6 11.6	6 12.4	6 13.2
3	6 9.6	6 10.3	6 10.9	6 11.6	6 12.3	6 13.1	6 14.0	6 14.8	6 15.8	6 16.8	6 18.0
4	6 11.9	6 12.8	6 13.6	6 14.5	6 15.5	6 16.5	6 17.6	6 18.7	6 20.0	6 21.3	6 22.8
5	6 14.3	6 15.3	6 16.4	6 17.5	6 18.6	6 19.9	6 21.2	6 22.6	6 24.2	6 25.8	6 27.6
6	6 16.6	6 17.8	6 19.1	6 20.4	6 21.8	6 23.3	6 24.9	6 26.6	6 28.4	6 30.4	6 32.5
7	6 19.0	6 20.4	6 21.8	6 23.4	6 25.0	6 26.7	6 28.6	6 30.5	6 32.6	6 34.9	6 37.4
8	6 21.3	6 22.9	6 24.6	6 26.4	6 28.2	6 30.2	6 32.3	6 34.5	6 36.9	6 39.5	6 42.3
9	6 23.7	6 25.5	6 27.4	6 29.4	6 31.4	6 33.7	6 36.0	6 38.5	6 41.2	6 44.1	6 47.3
10	6 26.1	6 28.1	6 30.2	6 32.4	6 34.7	6 37.2	6 39.8	6 42.5	6 45.6	6 48.8	6 52.3
+11	6 28.5	6 30.7	6 33.0	6 35.4	6 38.0	6 40.7	6 43.6	6 46.6	6 49.9	6 53.5	6 57.4
12	6 31.0	6 33.4	6 35.9	6 38.5	6 41.3	6 44.3	6 47.4	6 50.8	6 54.4	6 58.3	7 2.5
13	6 33.4	6 36.0	6 38.8	6 41.6	6 44.7	6 47.9	6 51.3	6 54.9	6 58.9	7 3.1	7 7.8
14	6 35.9	6 38.7	6 41.7	6 44.8	6 48.0	6 51.5	6 55.2	6 59.2	7 3.4	7 8.0	7 13.1
15	6 38.4	6 41.4	6 44.6	6 47.9	6 51.5	6 55.2	6 59.2	7 3.5	7 8.1	7 13.0	7 18.5
16	6 41.0	6 44.2	6 47.6	6 51.2	6 54.9	6 58.9	7 3.2	7 7.8	7 12.7	7 18.1	7 23.9
17	6 43.5	6 47.0	6 50.6	6 54.4	6 58.5	7 2.7	7 7.3	7 12.2	7 17.5	7 23.3	7 29.5
18	6 46.1	6 49.8	6 53.7	6 57.7	7 2.0	7 6.6	7 11.5	7 16.7	7 22.4	7 28.5	7 35.3
19	6 48.8	6 52.7	6 56.8	7 1.1	7 5.7	7 10.5	7 15.7	7 21.3	7 27.4	7 33.9	7 41.1
20	6 51.5	6 55.6	6 59.9	7 4.5	7 9.4	7 14.5	7 20.1	7 26.0	7 32.4	7 39.4	7 47.1
+21	6 54.2	6 58.6	7 3.1	7 8.0	7 13.1	7 18.6	7 24.5	7 30.8	7 37.6	7 45.1	7 53.3
22	6 56.9	7 1.6	7 6.4	7 11.5	7 17.0	7 22.8	7 29.0	7 35.7	7 42.9	7 50.9	7 59.6
23	6 59.8	7 4.6	7 9.7	7 15.1	7 20.9	7 27.0	7 33.6	7 40.7	7 48.4	7 56.8	8 6.1
24	7 2.6	7 7.7	7 13.1	7 18.8	7 24.9	7 31.3	7 38.3	7 45.8	7 54.0	8 2.9	8 12.9
25	7 5.6	7 10.9	7 16.6	7 22.6	7 29.0	7 35.8	7 43.1	7 51.1	7 59.8	8 9.3	8 19.9
26	7 8.5	7 14.2	7 20.1	7 26.4	7 33.2	7 40.4	7 48.1	7 56.5	8 5.7	8 15.8	8 27.1
27	7 11.6	7 17.5	7 23.8	7 30.4	7 37.5	7 45.0	7 53.2	8 2.1	8 11.8	8 22.6	8 34.7
28	7 14.7	7 20.9	7 27.5	7 34.4	7 41.9	7 49.9	7 58.5	8 7.9	8 18.2	8 29.7	8 42.6
29	7 17.9	7 24.4	7 31.3	7 38.6	7 46.4	7 54.8	8 3.9	8 13.9	8 24.8	8 37.1	8 51.0
+30	7 21.2	7 28.0	7 35.2	7 42.9	7 51.1	7 59.9	8 9.5	8 20.1	8 31.7	8 44.8	8 59.7

δ \ φ	+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
°	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
−30	3 11.8	3 4.1	2 55.8	2 46.8	2 36.9	2 25.9	2 13.5	1 59.3	1 42.4	1 21.1	0 49.7
29	3 20.1	3 12.9	3 5.3	2 57.0	2 48.0	2 38.1	2 27.1	2 14.7	2 0.4	1 43.4	1 21.9
28	3 28.0	3 21.3	3 14.2	3 6.6	2 58.3	2 49.3	2 39.4	2 28.4	2 15.9	2 1.6	1 44.5
27	3 35.5	3 29.3	3 22.7	3 15.7	3 8.0	2 59.8	2 50.8	2 40.8	2 29.8	2 17.3	2 2.9
26	3 42.8	3 37.0	3 30.8	3 24.2	3 17.2	3 9.6	3 1.4	2 52.4	2 42.4	2 31.3	2 18.8
25	3 49.7	3 44.3	3 38.6	3 32.4	3 25.9	3 18.9	3 11.3	3 3.1	2 54.1	2 44.1	2 33.0
24	3 56.5	3 51.4	3 46.0	3 40.3	3 34.3	3 27.8	3 20.8	3 13.2	3 5.0	2 56.0	2 46.0
23	4 3.0	3 58.2	3 53.2	3 47.9	3 42.3	3 36.2	3 29.8	3 22.8	3 15.3	3 7.1	2 58.0
22	4 9.3	4 4.9	4 0.2	3 55.2	3 50.0	3 44.3	3 38.4	3 31.9	3 25.0	3 17.5	3 9.3
21	4 15.4	4 11.3	4 6.9	4 2.3	3 57.4	3 52.2	3 46.6	3 40.7	3 34.3	3 27.4	3 19.9
−20	4 21.4	4 17.5	4 13.5	4 9.1	4 4.6	3 59.8	3 54.6	3 49.1	3 43.2	3 36.9	3 30.0
19	4 27.3	4 23.7	4 19.9	4 15.8	4 11.6	4 7.1	4 2.3	3 57.2	3 51.8	3 45.9	3 39.6
18	4 33.0	4 29.6	4 26.1	4 22.3	4 18.4	4 14.2	4 9.8	4 5.1	4 0.1	3 54.7	3 48.9
17	4 38.6	4 35.4	4 32.1	4 28.7	4 25.0	4 21.1	4 17.0	4 12.7	4 8.1	4 3.1	3 57.8
16	4 44.1	4 41.2	4 38.1	4 34.9	4 31.5	4 27.9	4 24.1	4 20.1	4 15.9	4 11.3	4 6.4
15	4 49.5	4 46.8	4 43.9	4 41.0	4 37.8	4 34.5	4 31.0	4 27.4	4 23.4	4 19.3	4 14.8
14	4 54.8	4 52.3	4 49.7	4 46.9	4 44.1	4 41.0	4 37.8	4 34.4	4 30.8	4 27.0	4 22.9
13	5 0.0	4 57.7	4 55.3	4 52.8	4 50.2	4 47.4	4 44.5	4 41.4	4 38.1	4 34.6	4 30.9
12	5 5.1	5 3.0	5 0.9	4 58.6	4 56.2	4 53.7	4 51.0	4 48.2	4 45.2	4 42.0	4 38.7
11	5 10.2	5 8.3	5 6.4	5 4.3	5 2.1	4 59.8	4 57.4	4 54.9	4 52.2	4 49.3	4 46.3
−10	5 15.2	5 13.5	5 11.8	5 9.9	5 7.9	5 5.9	5 3.7	5 1.5	4 59.1	4 56.5	4 53.8
9	5 20.2	5 18.7	5 17.1	5 15.5	5 13.7	5 11.9	5 10.0	5 8.0	5 5.8	5 3.6	5 1.2
8	5 25.1	5 23.8	5 22.4	5 21.0	5 19.5	5 17.9	5 16.2	5 14.4	5 12.5	5 10.6	5 8.5
7	5 30.0	5 28.9	5 27.7	5 26.4	5 25.1	5 23.8	5 22.3	5 20.8	5 19.2	5 17.5	5 15.7
6	5 34.9	5 33.9	5 32.9	5 31.8	5 30.7	5 29.6	5 28.4	5 27.1	5 25.7	5 24.3	5 22.8
5	5 39.7	5 38.9	5 38.1	5 37.2	5 36.3	5 35.4	5 34.4	5 33.4	5 32.2	5 31.1	5 29.9
4	5 44.5	5 43.9	5 43.3	5 42.6	5 41.9	5 41.2	5 40.4	5 39.6	5 38.7	5 37.8	5 36.9
3	5 49.3	5 48.9	5 48.4	5 47.9	5 47.4	5 46.9	5 46.3	5 45.8	5 45.2	5 44.5	5 43.8
2	5 54.1	5 53.8	5 53.5	5 53.3	5 52.9	5 52.6	5 52.3	5 52.0	5 51.6	5 51.2	5 50.8
− 1	5 58.9	5 58.8	5 58.7	5 58.6	5 58.4	5 58.3	5 58.2	5 58.1	5 58.0	5 57.9	5 57.7
0	6 3.6	6 3.7	6 3.8	6 3.9	6 4.0	6 4.1	6 4.2	6 4.3	6 4.4	6 4.5	6 4.7
+ 1	6 8.4	6 8.6	6 8.9	6 9.2	6 9.5	6 9.8	6 10.1	6 10.4	6 10.8	6 11.2	6 11.6
2	6 13.2	6 13.6	6 14.0	6 14.5	6 15.0	6 15.5	6 16.0	6 16.6	6 17.2	6 17.8	6 18.5
3	6 18.0	6 18.6	6 19.2	6 19.8	6 20.5	6 21.2	6 22.0	6 22.8	6 23.6	6 24.6	6 25.5
4	6 22.8	6 23.5	6 24.4	6 25.2	6 26.1	6 27.0	6 28.0	6 29.0	6 30.1	6 31.3	6 32.5
5	6 27.6	6 28.6	6 29.6	6 30.6	6 31.7	6 32.8	6 34.0	6 35.3	6 36.6	6 38.1	6 39.6
6	6 32.5	6 33.6	6 34.8	6 36.0	6 37.3	6 38.7	6 40.1	6 41.6	6 43.2	6 44.9	6 46.7
7	6 37.4	6 38.7	6 40.0	6 41.5	6 43.0	6 44.6	6 46.2	6 48.0	6 49.8	6 51.8	6 53.9
8	6 42.3	6 43.8	6 45.3	6 47.0	6 48.7	6 50.5	6 52.4	6 54.4	6 56.5	6 58.8	7 1.2
9	6 47.3	6 48.9	6 50.7	6 52.6	6 54.5	6 56.5	6 58.7	7 0.9	7 3.3	7 5.9	7 8.6
10	6 52.3	6 54.1	6 56.1	6 58.2	7 0.3	7 2.6	7 5.0	7 7.5	7 10.2	7 13.1	7 16.2
+11	6 57.4	6 59.4	7 1.6	7 3.9	7 6.3	7 8.8	7 11.4	7 14.2	7 17.2	7 20.4	7 23.8
12	7 2.5	7 4.8	7 7.2	7 9.7	7 12.3	7 15.1	7 18.0	7 21.1	7 24.3	7 27.8	7 31.5
13	7 7.8	7 10.2	7 12.8	7 15.5	7 18.4	7 21.4	7 24.6	7 28.0	7 31.6	7 35.4	7 39.5
14	7 13.1	7 15.7	7 18.6	7 21.5	7 24.6	7 27.9	7 31.4	7 35.1	7 39.0	7 43.2	7 47.7
15	7 18.5	7 21.4	7 24.4	7 27.6	7 31.0	7 34.6	7 38.3	7 42.4	7 46.6	7 51.2	7 56.1
16	7 23.9	7 27.1	7 30.4	7 33.8	7 37.5	7 41.4	7 45.4	7 49.8	7 54.4	7 59.4	8 4.7
17	7 29.5	7 32.9	7 36.5	7 40.2	7 44.1	7 48.3	7 52.7	7 57.4	8 2.5	8 7.9	8 13.7
18	7 35.3	7 38.9	7 42.7	7 46.7	7 50.9	7 55.4	8 0.2	8 5.3	8 10.8	8 16.6	8 23.0
19	7 41.1	7 45.0	7 49.1	7 53.4	7 57.9	8 2.8	8 7.9	8 13.4	8 19.4	8 25.7	8 32.6
20	7 47.1	7 51.3	7 55.6	8 0.3	8 5.2	8 10.4	8 15.9	8 21.9	8 28.3	8 35.2	8 42.8
+21	7 53.3	7 57.7	8 2.4	8 7.3	8 12.6	8 18.2	8 24.2	8 30.7	8 37.6	8 45.2	8 53.5
22	7 59.6	8 4.3	8 9.4	8 14.7	8 20.3	8 26.4	8 32.8	8 39.8	8 47.4	8 55.	9 4.8
23	8 6.1	8 11.2	8 16.6	8 22.3	8 28.3	8 34.9	8 41.9	8 49.5	8 57.7	9 6.8	9 16.9
24	8 12.9	8 18.3	8 24.0	8 30.2	8 36.7	8 43.8	8 51.4	8 59.6	9 8.7	9 18.8	9 30.0
25	8 19.9	8 25.7	8 31.8	8 38.4	8 45.5	8 53.1	9 1.4	9 10.5	9 20.5	9 31.7	9 44.4
26	8 27.1	8 33.4	8 40.0	8 47.0	8 54.7	9 3.0	9 12.1	9 22.1	9 33.2	9 45.9	10 0.6
27	8 34.7	8 41.4	8 48.5	8 56.1	9 4.4	9 13.5	9 23.5	9 34.6	9 47.3	10 1.9	10 19.5
28	8 42.6	8 49.8	8 57.5	9 5.8	9 14.8	9 24.8	9 35.9	9 48.5	10 3.1	10 20.5	10 42.9
29	8 51.0	8 58.7	9 7.0	9 16.1	9 26.0	9 37.1	9 49.6	10 4.1	10 21.5	10 43.7	11 18.1
+30	8 59.7	9 8.1	9 17.2	9 27.1	9 38.2	9 50.7	10 5.1	10 22.3	10 44.4	11 18.5	—

Reduktionstafel

für den Auf- und Untergang der Sonne

Das obere Vorzeichen gilt für den Aufgang, das untere Vorzeichen für den Untergang.

Tag		Geographische Breite										
		+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
1939		m	m	m	m	m	m	m	m	m	m	m
Jan.	1	∓62.8	∓58.1	∓53.2	∓48.1	∓42.7	∓36.7	∓30.5	∓23.8	∓16.5	∓8.7	0.0
	11	∓58.7	∓54.2	∓49.7	∓44.8	∓39.8	∓34.3	∓28.5	∓22.2	∓15.4	∓8.0	0.0
	21	∓52.5	∓48.5	∓44.4	∓39.9	∓35.4	∓30.5	∓25.3	∓19.8	∓13.7	∓7.1	0.0
	31	∓44.7	∓41.3	∓37.7	∓34.0	∓30.0	∓25.9	∓21.4	∓16.7	∓11.7	∓6.0	0.0
Febr.	10	∓35.9	∓33.2	∓30.3	∓27.3	∓24.2	∓20.7	∓17.1	∓13.3	∓ 9.3	∓4.8	0.0
	20	∓26.6	∓24.6	∓22.4	∓20.2	∓17.9	∓15.3	∓12.6	∓ 9.8	∓ 6.8	∓3.5	0.0
März	2	∓17.1	∓15.7	∓14.3	∓12.9	∓11.4	∓ 9.7	∓ 8.0	∓ 6.2	∓ 4.3	∓2.2	0.0
	12	∓ 7.4	∓ 6.8	∓ 6.2	∓ 5.6	∓ 4.9	∓ 4.1	∓ 3.4	∓ 2.7	∓ 1.9	∓0.9	0.0
	22	± 2.3	± 2.2	± 2.0	± 1.9	± 1.6	± 1.5	± 1.2	± 0.9	± 0.6	±0.3	0.0
April	1	±12.0	±11.1	±10.1	± 9.2	± 8.1	± 7.0	± 5.8	± 4.5	± 3.1	±1.6	0.0
	11	±21.7	±20.0	±18.3	±16.5	±14.5	±12.5	±10.3	± 8.1	± 5.5	±2.9	0.0
	21	±31.2	±28.7	±26.3	±23.7	±20.8	±18.0	±14.9	±11.6	± 8.0	±4.2	0.0
Mai	1	±40.3	±37.2	±34.0	±30.7	±27.1	±23.4	±19.5	±15.1	±10.5	±5.5	0.0
	11	±48.9	±45.2	±41.3	±37.3	±33.2	±28.5	±23.7	±18.4	±12.8	±6.7	0.0
	21	±56.5	±52.4	±47.9	±43.3	±38.5	±33.1	±27.5	±21.5	±14.9	±7.8	0.0
	31	±62.8	±58.3	±53.4	±48.2	±42.8	±36.9	±30.7	±24.0	±16.8	±8.8	0.0
Juni	10	±67.0	±62.1	±57.0	±51.5	±45.7	±39.6	±33.0	±25.9	±18.0	±9.5	0.0
	20	±68.8	±63.8	±58.6	±52.9	±47.0	±40.7	±33.9	±26.6	±18.5	±9.8	0.0
	30	±68.0	±63.0	±57.8	±52.2	±46.4	±40.1	±33.4	±26.2	±18.2	±9.6	0.0
Juli	10	±64.6	±59.8	±54.9	±49.6	±44.1	±38.1	±31.7	±24.8	±17.2	±9.1	0.0
	20	±59.1	±54.7	±50.1	±45.2	±40.2	±34.7	±28.8	±22.6	±15.6	±8.2	0.0
	30	±51.9	±48.0	±44.1	±39.7	±35.2	±30.3	±25.2	±19.7	±13.7	±7.1	0.0
Aug.	9	±43.7	±40.4	±37.0	±33.3	±29.6	±25.4	±21.1	±16.5	±11.5	±5.9	0.0
	19	±34.8	±32.2	±29.4	±26.5	±23.5	±20.2	±16.8	±13.0	± 9.1	±4.7	0.0
	29	±25.5	±23.6	±21.6	±19.5	±17.2	±14.8	±12.3	± 9.5	± 6.7	±3.4	0.0
Sept.	8	±16.1	±14.8	±13.6	±12.3	±10.9	± 9.3	± 7.7	± 6.0	± 4.2	±2.1	0.0
	18	± 6.6	± 6.0	± 5.5	± 5.0	± 4.5	± 3.8	± 3.1	± 2.5	± 1.8	±0.9	0.0
	28	∓ 3.0	∓ 2.8	∓ 2.5	∓ 2.2	∓ 1.9	∓ 1.7	∓ 1.4	∓ 1.0	∓ 0.7	∓0.4	0.0
Okt.	8	∓12.7	∓11.6	∓10.5	∓ 9.5	∓ 8.3	∓ 7.2	∓ 5.9	∓ 4.6	∓ 3.1	∓1.6	0.0
	18	∓22.2	∓20.4	∓18.6	∓16.7	∓14.7	∓12.7	∓10.4	∓ 8.1	∓ 5.5	∓2.9	0.0
	28	∓31.5	∓29.0	∓26.5	∓23.8	∓21.0	∓18.1	∓14.9	∓11.6	∓ 8.0	∓4.2	0.0
Nov.	7	∓40.4	∓37.3	∓34.1	∓30.7	∓27.1	∓23.3	∓19.3	∓15.0	∓10.3	∓5.5	0.0
	17	∓48.7	∓45.0	∓41.1	∓37.1	∓32.8	∓28.2	∓23.4	∓18.2	∓12.6	∓6.7	0.0
	27	∓55.7	∓51.6	∓47.2	∓42.6	∓37.7	∓32.4	∓27.0	∓21.0	∓14.7	∓7.7	0.0
Dez.	7	∓61.0	∓56.4	∓51.6	∓46.6	∓41.3	∓35.6	∓29.6	∓23.2	∓16.1	∓8.5	0.0
	17	∓63.9	∓59.1	∓54.1	∓48.9	∓43.3	∓37.4	∓31.1	∓24.3	∓16.9	∓8.9	0.0
	27	∓63.9	∓59.1	∓54.1	∓48.9	∓43.3	∓37.4	∓31.1	∓24.3	∓16.9	∓8.9	0.0
	37	∓61.2	∓56.6	∓51.8	∓46.8	∓41.5	∓35.8	∓29.8	∓23.2	∓16.1	∓8.4	0.0

Reduktionstafel

für den Auf- und Untergang der Sonne

Das obere Vorzeichen gilt für den Aufgang, das untere Vorzeichen für den Untergang.

Tag		Geographische Breite										
		+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
1939		m	m	m	m	m	m	m	m	m	m	m
Jan.	1	0.0	±4.7	± 9.6	±14.8	±20.5	±26.4	±32.8	±39.7	±47.1	±55.2	±64.0
	11	0.0	±4.4	± 8.9	±13.8	±18.9	±24.5	±30.3	±36.5	±43.2	±50.6	±58.5
	21	0.0	±3.8	± 7.9	±12.1	±16.7	±21.4	±26.5	±31.9	±37.7	±43.9	±50.6
	31	0.0	±3.2	± 6.6	±10.2	±13.9	±17.9	±22.1	±26.5	±31.3	±36.4	±41.8
Febr.	10	0.0	±2.5	± 5.2	± 8.1	±11.0	±14.2	±17.4	±20.8	±24.6	±28.5	±32.7
	20	0.0	±1.8	± 3.8	± 5.9	± 8.0	±10.3	±12.7	±15.1	±17.9	±20.7	±23.6
März	2	0.0	±1.2	± 2.4	± 3.8	± 5.1	± 6.5	± 8.0	± 9.5	±11.3	±13.0	±14.7
	12	0.0	±0.5	± 1.0	± 1.6	± 2.2	± 2.8	± 3.4	± 4.0	± 4.7	± 5.5	± 6.2
	22	0.0	∓0.2	∓ 0.4	∓ 0.5	∓ 0.7	∓ 1.0	∓ 1.3	∓ 1.5	∓ 1.7	∓ 2.0	∓ 2.4
April	1	0.0	∓0.9	∓ 1.8	∓ 2.6	∓ 3.7	∓ 4.7	∓ 5.9	∓ 7.1	∓ 8.2	∓ 9.6	∓10.9
	11	0.0	∓1.5	∓ 3.2	∓ 4.8	∓ 6.7	∓ 8.5	∓10.5	∓12.7	∓14.8	∓17.2	∓19.7
	21	0.0	∓2.2	∓ 4.6	∓ 7.0	∓ 9.7	∓12.4	∓15.3	∓18.3	∓21.6	∓25.0	∓28.8
Mai	1	0.0	∓3.0	∓ 6.1	∓ 9.2	∓12.7	∓16.3	∓20.1	∓24.1	∓28.4	∓33.0	∓38.0
	11	0.0	∓3.6	∓ 7.4	∓11.3	∓15.6	∓20.1	∓24.8	∓30.0	∓35.4	∓41.2	∓47.5
	21	0.0	∓4.2	∓ 8.7	∓13.4	∓18.3	∓23.7	∓29.4	∓35.6	∓42.1	∓49.2	∓57.0
	31	0.0	∓4.7	∓ 9.8	∓15.2	∓20.7	∓26.9	∓33.4	∓40.5	∓48.1	∓56.3	∓65.5
Juni	10	0.0	∓5.1	∓10.6	∓16.4	∓22.6	∓29.2	∓36.2	∓44.0	∓52.4	∓61.7	∓72.1
	20	0.0	∓5.3	∓10.9	∓16.9	∓23.3	∓30.2	∓37.5	∓45.6	∓54.4	∓64.0	∓75.1
	30	0.0	∓5.2	∓10.7	∓16.6	∓22.9	∓29.6	∓36.9	∓44.9	∓53.5	∓62.9	∓73.7
Juli	10	0.0	∓4.9	∓10.1	∓15.6	∓21.5	∓27.9	∓34.6	∓41.9	∓49.8	∓58.6	∓68.2
	20	0.0	∓4.4	∓ 9.1	∓14.0	∓19.4	∓25.0	∓31.0	∓37.4	∓44.5	∓52.0	∓60.3
	30	0.0	∓3.8	∓ 7.9	∓12.2	∓16.7	∓21.5	∓26.6	∓32.1	∓38.0	∓44.3	∓51.1
Aug.	9	0.0	∓3.2	∓ 6.5	∓10.1	∓13.9	∓17.8	∓22.0	∓26.5	∓31.2	∓36.2	∓41.6
	19	0.0	∓2.5	∓ 5.1	∓ 7.9	∓10.9	∓13.9	∓17.2	∓20.7	∓24.4	∓28.2	∓32.4
	29	0.0	∓1.8	∓ 3.7	∓ 5.8	∓ 7.9	∓10.1	∓12.4	∓14.9	∓17.6	∓20.4	∓23.3
Sept.	8	0.0	∓1.2	∓ 2.3	∓ 3.7	∓ 5.0	∓ 6.3	∓ 7.8	∓ 9.3	∓11.0	∓12.8	∓14.6
	18	0.0	∓0.5	∓ 0.9	∓ 1.6	∓ 2.1	∓ 2.6	∓ 3.2	∓ 3.8	∓ 4.6	∓ 5.3	∓ 6.0
	28	0.0	±0.2	± 0.5	± 0.5	± 0.8	± 1.1	± 1.3	± 1.6	± 1.8	± 2.1	± 2.4
Okt.	8	0.0	±0.9	± 1.8	± 2.7	± 3.7	± 4.8	± 5.9	± 7.0	± 8.2	± 9.5	±10.8
	18	0.0	±1.6	± 3.2	± 4.8	± 6.6	± 8.5	±10.4	±12.5	±14.7	±17.0	±19.5
	28	0.0	±2.2	± 4.6	± 6.9	± 9.5	±12.3	±15.1	±18.1	±21.3	±24.6	±28.3
Nov.	7	0.0	±2.9	± 6.0	± 9.0	±12.5	±16.0	±19.8	±23.7	±27.9	±32.4	±37.4
	17	0.0	±3.6	± 7.3	±11.1	±15.3	±19.6	±24.3	±29.3	±34.5	±40.1	±46.3
	27	0.0	±4.1	± 8.4	±13.1	±17.8	±22.9	±28.4	±34.3	±40.6	±47.3	±54.7
Dez.	7	0.0	±4.6	± 9.3	±14.5	±19.8	±25.5	±31.7	±38.2	±45.4	±53.1	±61.5
	17	0.0	±4.8	± 9.8	±15.2	±20.9	±27.0	±33.5	±40.5	±48.2	±56.4	±65.5
	27	0.0	±4.8	± 9.8	±15.2	±20.9	±27.0	±33.5	±40.5	±48.2	±56.4	±65.7
	37	0.0	±4.6	± 9.3	±14.4	±19.8	±25.7	±31.9	±38.4	±45.5	±53.3	±61.7

Reduktionstafel

für den Auf- und Untergang des Mondes

Das obere Vorzeichen gilt für den Aufgang, das untere Vorzeichen für den Untergang.

t*)	Geographische Breite										
	+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
h m	m	m	m	m	m	m	m	m	m	m	m
3 20	∓94.6	∓87.9	∓80.9	∓73.4	∓65.5	∓56.9	∓47.6	∓37.5	∓26.4	∓14.0	0.0
3 30	∓88.5	∓82.2	∓75.6	∓68.5	∓61.0	∓52.9	∓44.2	∓34.8	∓24.4	∓12.9	0.0
3 40	∓82.5	∓76.5	∓70.3	∓63.7	∓56.6	∓49.1	∓41.0	∓32.2	∓22.5	∓11.9	0.0
3 50	∓76.6	∓71.0	∓65.2	∓59.0	∓52.4	∓45.3	∓37.8	∓29.6	∓20.7	∓10.9	0.0
4 0	∓70.8	∓65.6	∓60.1	∓54.4	∓48.2	∓41.7	∓34.7	∓27.2	∓18.9	∓ 9.9	0.0
4 10	∓65.1	∓60.3	∓55.2	∓49.9	∓44.2	∓38.2	∓31.7	∓24.8	∓17.3	∓ 9.0	0.0
4 20	∓59.5	∓55.0	∓50.3	∓45.5	∓40.3	∓34.8	∓28.9	∓22.5	∓15.7	∓ 8.2	0.0
4 30	∓54.0	∓49.9	∓45.6	∓41.2	∓36.5	∓31.4	∓26.1	∓20.4	∓14.1	∓ 7.4	0.0
4 40	∓48.4	∓44.8	∓40.9	∓36.9	∓32.7	∓28.2	∓23.3	∓18.2	∓12.6	∓ 6.6	0.0
4 50	∓43.0	∓39.8	∓36.4	∓32.7	∓29.0	∓24.9	∓20.7	∓16.1	∓11.2	∓ 5.8	0.0
5 0	∓37.7	∓34.8	∓31.8	∓28.6	∓25.3	∓21.8	∓18.1	∓14.1	∓ 9.8	∓ 5.0	0.0
5 10	∓32.4	∓29.9	∓27.3	∓24.6	∓21.7	∓18.7	∓15.5	∓12.1	∓ 8.4	∓ 4.3	0.0
5 20	∓27.1	∓25.0	∓22.8	∓20.6	∓18.2	∓15.6	∓12.9	∓10.1	∓ 7.0	∓ 3.6	0.0
5 30	∓21.9	∓20.2	∓18.4	∓16.6	∓14.7	∓12.6	∓10.4	∓ 8.1	∓ 5.6	∓ 2.9	0.0
5 40	∓16.7	∓15.4	∓14.0	∓12.6	∓11.2	∓ 9.6	∓ 7.9	∓ 6.2	∓ 4.3	∓ 2.2	0.0
5 50	∓11.5	∓10.6	∓ 9.7	∓ 8.7	∓ 7.7	∓ 6.6	∓ 5.5	∓ 4.2	∓ 2.9	∓ 1.5	0.0
6 0	∓ 6.4	∓ 5.8	∓ 5.4	∓ 4.8	∓ 4.2	∓ 3.6	∓ 3.0	∓ 2.3	∓ 1.6	∓ 0.9	0.0
6 10	∓ 1.2	∓ 1.1	∓ 1.0	∓ 0.9	∓ 0.8	∓ 0.7	∓ 0.6	∓ 0.4	∓ 0.3	∓ 0.2	0.0
6 20	± 4.0	± 3.7	± 3.4	± 3.0	± 2.6	± 2.3	± 1.9	± 1.5	± 1.0	± 0.5	0.0
6 30	± 9.1	± 8.4	± 7.7	± 6.9	± 6.1	± 5.3	± 4.4	± 3.4	± 2.4	± 1.2	0.0
6 40	±14.3	±13.2	±12.0	±10.8	± 9.6	± 8.2	± 6.8	± 5.3	± 3.7	± 1.9	0.0
6 50	±19.5	±18.0	±16.4	±14.8	±13.1	±11.2	± 9.3	± 7.2	± 5.0	± 2.6	0.0
7 0	±24.7	±22.8	±20.9	±18.8	±16.6	±14.2	±11.8	± 9.1	± 6.3	± 3.3	0.0
7 10	±30.0	±27.7	±25.3	±22.8	±20.1	±17.3	±14.3	±11.1	± 7.7	± 4.0	0.0
7 20	±35.3	±32.6	±29.7	±26.8	±23.7	±20.3	±16.8	±13.1	± 9.1	± 4.7	0.0
7 30	±40.6	±37.5	±34.3	±30.9	±27.3	±23.4	±19.4	±15.1	±10.5	± 5.5	0.0
7 40	±45.9	±42.5	±38.9	±35.0	±31.0	±26.6	±22.1	±17.2	±12.0	± 6.2	0.0
7 50	±51.4	±47.6	±43.5	±39.2	±34.7	±29.9	±24.8	±19.3	±13.5	± 7.0	0.0
8 0	±56.9	±52.7	±48.2	±43.5	±38.5	±33.2	±27.6	±21.5	±15.0	± 7.8	0.0
8 10	±62.5	±57.9	±53.0	±47.9	±42.4	±36.6	±30.4	±23.8	±16.6	± 8.6	0.0
8 20	±68.2	±63.2	±57.9	±52.3	±46.4	±40.1	±33.3	±26.1	±18.2	± 9.5	0.0
8 30	±74.0	±68.5	±62.9	±56.9	±50.5	±43.7	±36.4	±28.5	±19.8	±10.5	0.0
8 40	±79.8	±74.0	±67.9	±61.5	±54.7	±47.3	±39.5	±30.9	±21.6	±11.4	0.0
8 50	±85.8	±79.6	±73.1	±66.3	±59.0	±51.1	±42.7	±33.5	±23.5	±12.5	0.0
9 0	±91.9	±85.3	±78.4	±71.2	±63.4	±55.0	±46.0	±36.3	±25.5	±13.5	0.0

*) *t* ist beim Aufgang der Zeitunterschied zwischen Aufgang und Kulmination, beim Untergang der Zeitunterschied zwischen Kulmination und Untergang.

Reduktionstafel

für den Auf- und Untergang des Mondes

Das obere Vorzeichen gilt für den Aufgang, das untere Vorzeichen für den Untergang.

t*)	Geographische Breite										
	+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
h m	m	m	m	m	m	m	m	m	m	m	m
3 20	0.0	±7.7	±16.1	±25.2	±35.1	±46.1	±58.4	±72.5	±89.1	±109.7	±138.1
3 30	0.0	±7.1	±14.7	±22.9	±31.8	±41.6	±52.4	±64.5	±78.3	± 94.5	±114.3
3 40	0.0	±6.5	±13.4	±20.9	±28.9	±37.6	±47.2	±57.7	±69.4	± 82.7	± 98.2
3 50	0.0	±5.9	±12.2	±19.0	±26.2	±34.0	±42.5	±51.7	±61.9	± 73.3	± 86.1
4 0	0.0	±5.4	±11.1	±17.2	±23.7	±30.8	±38.2	±46.3	±55.2	± 65.0	± 76.0
4 10	0.0	±4.9	±10.1	±15.6	±21.4	±27.7	±34.4	±41.6	±49.4	± 57.9	± 67.3
4 20	0.0	±4.5	± 9.1	±14.0	±19.2	±24.8	±30.8	±37.2	±44.0	± 51.5	± 59.6
4 30	0.0	±4.0	± 8.1	±12.5	±17.2	±22.2	±27.5	±33.1	±39.1	± 45.7	± 52.7
4 40	0.0	±3.5	± 7.3	±11.2	±15.3	±19.7	±24.3	±29.3	±34.5	± 40.2	± 46.3
4 50	0.0	±3.1	± 6.4	± 9.8	±13.4	±17.3	±21.4	±25.6	±30.2	± 35.1	± 40.4
5 0	0.0	±2.7	± 5.5	± 8.5	±11.6	±15.0	±18.5	±22.2	±26.1	± 30.3	± 34.8
5 10	0.0	±2.3	± 4.7	± 7.2	±10.0	±12.8	±15.7	±18.9	±22.2	± 25.7	± 29.5
5 20	0.0	±2.0	± 3.9	± 6.0	± 8.3	±10.7	±13.1	±15.7	±18.4	± 21.3	± 24.4
5 30	0.0	±1.6	± 3.2	± 4.8	± 6.7	± 8.5	±10.5	±12.6	±14.8	± 17.1	± 19.6
5 40	0.0	±1.2	± 2.4	± 3.7	± 5.0	± 6.5	± 7.9	± 9.5	±11.2	± 13.0	± 14.8
5 50	0.0	±0.8	± 1.7	± 2.6	± 3.4	± 4.4	± 5.5	± 6.5	± 7.7	± 8.9	± 10.2
6 0	0.0	±0.5	± 0.9	± 1.4	± 1.9	± 2.4	± 3.0	± 3.6	± 4.2	± 4.9	± 5.6
6 10	0.0	±0.1	± 0.2	± 0.2	± 0.4	± 0.5	± 0.6	± 0.7	± 0.8	± 0.9	± 1.1
6 20	0.0	∓0.3	∓ 0.6	∓ 0.9	∓ 1.2	∓ 1.5	∓ 1.9	∓ 2.3	∓ 2.6	∓ 3.0	∓ 3.5
6 30	0.0	∓0.6	∓ 1.3	∓ 2.0	∓ 2.7	∓ 3.5	∓ 4.3	∓ 5.2	∓ 6.0	∓ 7.0	∓ 8.0
6 40	0.0	∓1.0	∓ 2.1	∓ 3.1	∓ 4.3	∓ 5.5	∓ 6.8	∓ 8.1	∓ 9.5	∓ 11.0	∓ 12.6
6 50	0.0	∓1.3	∓ 2.9	∓ 4.3	∓ 5.9	∓ 7.5	∓ 9.4	∓11.2	∓13.1	∓ 15.1	∓ 17.3
7 0	0.0	∓1.7	∓ 3.6	∓ 5.5	∓ 7.5	∓ 9.6	∓11.9	∓14.3	∓16.7	∓ 19.3	∓ 22.2
7 10	0.0	∓2.1	∓ 4.4	∓ 6.7	∓ 9.2	∓11.7	∓14.5	∓17.4	∓20.4	∓ 23.7	∓ 27.1
7 20	0.0	∓2.5	∓ 5.1	∓ 7.9	∓10.8	∓13.8	∓17.1	∓20.6	∓24.2	∓ 28.1	∓ 32.3
7 30	0.0	∓2.9	∓ 6.0	∓ 9.2	∓12.6	∓16.1	∓19.9	∓24.0	∓28.2	∓ 32.8	∓ 37.7
7 40	0.0	∓3.3	∓ 6.9	∓10.6	∓14.4	∓18.5	∓22.9	∓27.5	∓32.4	∓ 37.8	∓ 43.4
7 50	0.0	∓3.8	∓ 7.7	∓12.0	∓16.3	∓21.0	∓25.9	∓31.3	∓36.9	∓ 43.0	∓ 49.6
8 0	0.0	∓4.2	∓ 8.7	∓13.4	∓18.3	∓23.7	∓29.2	∓35.3	∓41.7	∓ 48.7	∓ 56.3
8 10	0.0	∓4.7	∓ 9.6	∓14.9	∓20.4	∓26.4	∓32.6	∓39.5	∓46.8	∓ 54.8	∓ 63.5
8 20	0.0	∓5.2	∓10.6	∓16.4	∓22.6	∓29.2	∓36.3	∓44.0	∓52.3	∓ 61.5	∓ 71.6
8 30	0.0	∓5.7	∓11.7	∓18.1	∓25.0	∓32.4	∓40.4	∓49.1	∓58.6	∓ 69.1	∓ 81.0
8 40	0.0	∓6.3	∓12.9	∓19.9	∓27.6	∓35.8	∓44.9	∓54.9	∓65.7	∓ 77.9	∓ 92.1
8 50	0.0	∓6.8	∓14.1	∓21.9	∓30.5	∓39.7	∓49.8	∓61.2	∓73.8	∓ 88.5	∓106.1
9 0	0.0	∓7.4	∓15.4	∓24.1	∓33.7	∓44.1	∓55.3	∓68.4	∓83.6	∓101.4	∓125.9

*) *t* ist beim Aufgang der Zeitunterschied zwischen Aufgang und Kulmination, beim Untergang der Zeitunterschied zwischen Kulmination und Untergang.

Hilfstafeln

zur Berechnung der optischen Mondlibration

λ−☊	Δλ	a	B	λ−☊	λ−☊	Δλ	a	B	λ−☊
°	′		° ′	°	°	′		° ′	°
0	+0.0+	−0.0269+	−0 0.0+	180	45	+0.6+	−0.0190+	−1 5.3+	225
1	0.0	268	0 1.6	181	46	0.6	187	1 6.4	226
2	0.0	268	0 3.2	182	47	0.6	183	1 7.5	227
3	0.1	268	0 4.8	183	48	0.6	180	1 8.6	228
4	0.1	268	0 6.4	184	49	0.6	176	1 9.7	229
5	+0.1+	−0.0268+	−0 8.0+	185	50	+0.6+	−0.0173+	−1 10.7+	230
6	0.1	267	0 9.7	186	51	0.6	169	1 11.8	231
7	0.1	267	0 11.3	187	52	0.6	165	1 12.8	232
8	0.2	266	0 12.9	188	53	0.6	162	1 13.8	233
9	0.2	265	0 14.4	189	54	0.6	158	1 14.7	234
10	+0.2+	−0.0264+	−0 16.0+	190	55	+0.6+	−0.0154+	−1 15.6+	235
11	0.2	264	0 17.6	191	56	0.6	150	1 16.5	236
12	0.2	263	0 19.2	192	57	0.6	146	1 17.4	237
13	0.3	262	0 20.8	193	58	0.6	142	1 18.3	238
14	0.3	261	0 22.3	194	59	0.5	138	1 19.2	239
15	+0.3+	−0.0259+	−0 23.9+	195	60	+0.5+	−0.0134+	−1 20.0+	240
16	0.3	258	0 25.5	196	61	0.5	130	1 20.8	241
17	0.3	257	0 27.0	197	62	0.5	126	1 21.5	242
18	0.4	255	0 28.5	198	63	0.5	122	1 22.3	243
19	0.4	254	0 30.1	199	64	0.5	118	1 23.0	244
20	+0.4+	−0.0252+	−0 31.6+	200	65	+0.5+	−0.0114+	−1 23.7+	245
21	0.4	251	0 33.1	201	66	0.5	109	1 24.4	246
22	0.4	249	0 34.6	202	67	0.4	105	1 25.0	247
23	0.4	247	0 36.1	203	68	0.4	101	1 25.6	248
24	0.5	245	0 37.6	204	69	0.4	096	1 26.2	249
25	+0.5+	−0.0243+	−0 39.0+	205	70	+0.4+	−0.0092+	−1 26.8+	250
26	0.5	241	0 40.5	206	71	0.4	87	1 27.3	251
27	0.5	239	0 41.9	207	72	0.4	83	1 27.8	252
28	0.5	237	0 43.4	208	73	0.3	79	1 28.3	253
29	0.5	235	0 44.8	209	74	0.3	74	1 28.8	254
30	+0.5+	−0.0233+	−0 46.2+	210	75	+0.3+	−0.0070+	−1 29.2+	255
31	0.5	230	0 47.6	211	76	0.3	65	1 29.6	256
32	0.6	228	0 48.9	212	77	0.3	60	1 30.0	257
33	0.6	225	0 50.3	213	78	0.2	56	1 30.3	258
34	0.6	223	0 51.6	214	79	0.2	51	1 30.6	259
35	+0.6+	−0.0220+	−0 53.0+	215	80	+0.2+	−0.0047+	−1 30.9+	260
36	0.6	217	0 54.3	216	81	0.2	42	1 31.2	261
37	0.6	214	0 55.6	217	82	0.2	37	1 31.4	262
38	0.6	212	0 56.9	218	83	0.1	33	1 31.6	263
39	0.6	209	0 58.1	219	84	0.1	28	1 31.8	264
40	+0.6+	−0.0206+	−0 59.4+	220	85	+0.1+	−0.0023+	−1 32.0+	265
41	0.6	203	1 0.6	221	86	0.1	19	1 32.1	266
42	0.6	200	1 1.8	222	87	0.1	14	1 32.2	267
43	0.6	196	1 3.0	223	88	0.0	09	1 32.3	268
44	0.6	193	1 4.1	224	89	0.0	05	1 32.3	269
45	+0.6+	−0.0190+	−1 5.3+	225	90	+0.0+	−0.0000+	−1 32.3+	270

$$l' = \lambda + \Delta\lambda - a(B - \beta) - L_{☾}; \quad b' = B - \beta$$

l', b' = Optische Libration der Mondmitte in selenographischer Länge und Breite.

λ, β = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort.

$L_{☾}$ = Mittlere Länge des Mondes, ☊ = Mondknoten.

Hilfstafeln

zur Berechnung der optischen Mondlibration

λ−☊	Δλ	a	B	λ−☊	λ−☊	Δλ	a	B	λ−☊
°	′		° ′	°	°	′		° ′	°
90	−0.0−	+0.0000−	−1 32.3+	270	135	−0.6−	+0.0190−	−1 5.3+	315
91	0.0	05	1 32.3	271	136	0.6	193	1 4.1	316
92	0.0	09	1 32.3	272	137	0.6	196	1 3.0	317
93	0.1	14	1 32.2	273	138	0.6	200	1 1.8	318
94	0.1	19	1 32.1	274	139	0.6	203	1 0.6	319
95	−0.1−	+0.0023−	−1 32.0+	275	140	−0.6−	+0.0206−	−0 59.4+	320
96	0.1	28	1 31.8	276	141	0.6	209	0 58.1	321
97	0.1	33	1 31.6	277	142	0.6	212	0 56.9	322
98	0.2	37	1 31.4	278	143	0.6	214	0 55.6	323
99	0.2	42	1 31.2	279	144	0.6	217	0 54.3	324
100	−0.2−	+0.0047−	−1 30.9+	280	145	−0.6−	+0.0220−	−0 53.0+	325
101	0.2	51	1 30.6	281	146	0.6	223	0 51.6	326
102	0.2	56	1 30.3	282	147	0.6	225	0 50.3	327
103	0.3	60	1 30.0	283	148	0.6	228	0 48.9	328
104	0.3	65	1 29.6	284	149	0.5	230	0 47.6	329
105	−0.3−	+0.0070−	−1 29.2+	285	150	−0.5−	+0.0233−	−0 46.2+	330
106	0.3	74	1 28.8	286	151	0.5	235	0 44.8	331
107	0.3	79	1 28.3	287	152	0.5	237	0 43.4	332
108	0.4	83	1 27.8	288	153	0.5	239	0 41.9	333
109	0.4	87	1 27.3	289	154	0.5	241	0 40.5	334
110	−0.4−	+0.0092−	−1 26.8+	290	155	−0.5−	+0.0243−	−0 39.0+	335
111	0.4	096	1 26.2	291	156	0.5	245	0 37.6	336
112	0.4	101	1 25.6	292	157	0.4	247	0 36.1	337
113	0.4	105	1 25.0	293	158	0.4	249	0 34.6	338
114	0.5	109	1 24.4	294	159	0.4	251	0 33.1	339
115	−0.5−	+0.0114−	−1 23.7+	295	160	−0.4−	+0.0252−	−0 31.6+	340
116	0.5	118	1 23.0	296	161	0.4	254	0 30.1	341
117	0.5	122	1 22.3	297	162	0.4	255	0 28.5	342
118	0.5	126	1 21.5	298	163	0.3	257	0 27.0	343
119	0.5	130	1 20.8	299	164	0.3	258	0 25.5	344
120	−0.5−	+0.0134−	−1 20.0+	300	165	−0.3−	+0.0259−	−0 23.9+	345
121	0.5	138	1 19.2	301	166	0.3	261	0 22.3	346
122	0.6	142	1 18.3	302	167	0.3	262	0 20.8	347
123	0.6	146	1 17.4	303	168	0.2	263	0 19.2	348
124	0.6	150	1 16.5	304	169	0.2	264	0 17.6	349
125	−0.6−	+0.0154−	−1 15.6+	305	170	−0.2−	+0.0264−	−0 16.0+	350
126	0.6	158	1 14.7	306	171	0.2	265	0 14.4	351
127	0.6	162	1 13.8	307	172	0.2	266	0 12.9	352
128	0.6	165	1 12.8	308	173	0.1	267	0 11.3	353
129	0.6	169	1 11.8	309	174	0.1	267	0 9.7	354
130	−0.6−	+0.0173−	−1 10.7+	310	175	−0.1−	+0.0268−	−0 8.0+	355
131	0.6	176	1 9.7	311	176	0.1	268	0 6.4	356
132	0.6	180	1 8.6	312	177	0.1	268	0 4.8	357
133	0.6	183	1 7.5	313	178	0.0	268	0 3.2	358
134	0.6	187	1 6.4	314	179	0.0	268	0 1.6	359
135	−0.6−	+0.0190−	−1 5.3+	315	180	−0.0−	+0.0269−	−0 0.0+	360

$$l' = \lambda + \Delta\lambda - a\,(B - \beta) - L_{☾}; \quad b' = B - \beta$$

l', b' = Optische Libration der Mondmitte in selenographischer Länge und Breite.

λ, β = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort.

$L_{☾}$ = Mittlere Länge des Mondes, ☊ = Mondknoten.

Hilfsgrößen

zur Berechnung der geozentrischen Koordinaten

$\rho \sin \varphi' = s \sin \varphi$; $\rho \cos \varphi' = c \cos \varphi$

φ	log s		log c		φ	log s		log c	
± 0°	9.9970705	4	0.0000000	4	±40°	9.9976745	252	0.0006040	252
1	.9970709	14	.0000004	14	41	.9976997	254	.0006292	254
2	.9970723	22	.0000018	22	42	.9977251	255	.0006546	255
3	.9970745	31	.0000040	31	43	.9977506	255	.0006801	255
4	.9970776	40	.0000071	40	44	.9977761	255	.0007056	255
5	9.9970816	49	0.0000111	49	45	9.9978016	256	0.0007311	256
6	.9970865	57	.0000160	57	46	.9978272	255	.0007567	255
7	.9970922	66	.0000217	66	47	.9978527	255	.0007822	255
8	.9970988	74	.0000283	74	48	.9978782	254	.0008077	254
9	.9971062	83	.0000357	83	49	.9979036	252	.0008331	252
10	9.9971145	92	0.0000440	92	50	9.9979288	252	0.0008583	252
11	.9971237	99	.0000532	99	51	.9979540	249	.0008835	249
12	.9971336	108	.0000631	108	52	.9979789	247	.0009084	247
13	.9971444	116	.0000739	116	53	.9980036	245	.0009331	245
14	.9971560	123	.0000855	123	54	.9980281	242	.0009576	242
15	9.9971683	131	0.0000978	131	55	9.9980523	239	0.0009818	239
16	.9971814	139	.0001109	139	56	.9980762	235	.0010057	235
17	.9971953	146	.0001248	146	57	.9980997	232	.0010292	232
18	.9972099	154	.0001394	154	58	.9981229	228	.0010524	228
19	.9972253	160	.0001548	160	59	.9981457	224	.0010752	224
20	9.9972413	168	0.0001708	168	60	9.9981681	220	0.0010976	220
21	.9972581	174	.0001876	174	61	.9981901	215	.0011196	215
22	.9972755	180	.0002050	180	62	.9982116	209	.0011411	209
23	.9972935	187	.0002230	187	63	.9982325	205	.0011620	205
24	.9973122	192	.0002417	192	64	.9982530	199	.0011825	199
25	9.9973314	198	0.0002609	198	65	9.9982729	193	0.0012024	193
26	.9973512	204	.0002807	204	66	.9982922	188	.0012217	188
27	.9973716	209	.0003011	209	67	.9983110	181	.0012405	181
28	.9973925	214	.0003220	214	68	.9983291	175	.0012586	175
29	.9974139	219	.0003434	219	69	.9983466	168	.0012761	168
30	9.9974358	223	0.0003653	223	70	9.9983634	161	0.0012929	161
31	.9974581	227	.0003876	227	71	.9983795	154	.0013090	154
32	.9974808	232	.0004103	232	72	.9983949	147	.0013244	147
33	.9975040	235	.0004335	235	73	.9984096	140	.0013391	140
34	.9975275	238	.0004570	238	74	.9984236	132	.0013531	132
35	9.9975513	241	0.0004808	241	75	9.9984368	124	0.0013663	124
36	.9975754	245	.0005049	245	76	.9984492	117	.0013787	117
37	.9975999	246	.0005294	246	77	.9984609	108	.0013904	108
38	.9976245	249	.0005540	249	78	.9984717	100	.0014012	100
39	.9976494	251	.0005789	251	79	.9984817	92	.0014112	92
40	9.9976745		0.0006040		80	9.9984909		0.0014204	

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich − östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Abbadia	69	+43 22 52.2	+ 0 7 0.1	+ 1.15	+43 11 17.8	9.999317
Abo	—	+60 26 56.8	− 1 29 6.30	− 14.64	+60 16 58.8	9.998894
Adelaide	41	−34 55 35.1	− 9 14 19.90	− 91.06	−34 44 42.7	9.999526
Albany (Neue Sternw.)[1]	40	+42 39 12.8	+ 4 55 7.12	+ 48.48	+42 27 39.7	9.999334
Algier (Neue Sternw.)[2]	345	+36 48 4.8	− 0 12 8.47	− 1.99	+36 36 58.1	9.999497
Allegheny (Neue Sternw.)	370	+40 28 58.1	+ 5 20 5.39	+ 52.59	+40 17 31.4	9.999411
Allegheny (Alte Sternw.)	349	+40 27 41.6	+ 5 20 2.97	+ 52.58	+40 16 15.0	9.999411
Amherst (Neue Sternw.)	110	+42 21 56.5	+ 4 50 5.98	+ 47.66	+42 10 24.0	9.999346
Amherst (Alte Sternw.)	122	+42 22 17.1	+ 4 50 4.72	+ 47.66	+42 10 44.6	9.999347
Ann Arbor	282	+42 16 48.7	+ 5 34 55.27	+ 55.02	+42 5 16.4	9.999360
Arcetri Zentr. d. Sternw.[3]	184	+43 45 14.4	− 0 45 1.30	− 7.39	+43 33 39.5	9.999316
Arequipa[4]	2451	−16 22 28.0	+ 4 46 11.73	+ 47.02	−16 16 12.7	0.000052
Armagh	64	+54 21 11	+ 0 26 35.48	+ 4.37	+54 10 11.4	9.999041
Athen	110	+37 58 15.5	− 1 34 52.2	− 15.58	+37 47 1.2	9.999456
Bamberg (Remeis-Sternw.)	288	+49 53 6.0	− 0 43 33.57	− 7.15	+49 41 40.0	9.999167
Barcelona[5]	415	+41 24 59.3	− 0 8 30.2	− 1.41	+41 13 29.4	9.999391
Belgrad	250	+44 48 8	− 1 22 3.8	− 13.48	+44 36 32	9.999294
Beloit	245	+42 30 8.4	+ 5 56 7.4	+ 58.51	+42 18 35.6	9.999352
Bergedorf Mer.-Kr.	41	+53 28 46.9	− 0 40 57.74	− 6.73	+53 17 40.8	9.999060
Berkeley	94	+37 52 23.5	+ 8 9 2.80	+ 80.34	+37 41 9.8	9.999458
Berlin-Babelsberg[6]	82	+52 24 24.2	− 0 52 25.49	− 8.61	+52 13 11.1	9.999089
Berlin (Urania)[7]	47	+52 31 30.7	− 0 53 27.40	− 8.78	+52 20 18.3	9.999084
Bern	573	+46 57 8.7	− 0 29 45.55	− 4.89	+46 45 34.5	9.999261
Besançon	312	+47 14 59.0	− 0 23 57.1	− 3.93	+47 3 25.3	9.999236
Blaca	280	+43 17 37	− 1 6 8.0	− 10.86	+43 6 3	9.999334
Bloemfontein Filiale d. Detroit Obs.	1490	−29 5 45	− 1 44 57	− 17.24	−28 55 55	9.999758
Bloemfontein Boyden Stat. d. Harv. Obs.	1379	−29 12	− 1 45 57	− 17.40	−29 2	9.999748
Bogota	2640	+ 4 35 55.2	+ 4 56 19.51	+ 48.68	+ 4 34 4.4	0.000111
Bologna Zentr. d. Sternw.	84	+44 29 52.8	− 0 45 24.48	− 7.46	+44 18 17.3	9.999290
Bombay (Colaba)	19	+18 53 36.2	− 4 51 15.60	− 47.85	+18 46 31.1	9.999849
Bonn Zentr. d. Sternw.	62	+50 43 45.0	− 0 28 23.18	− 4.66	+50 32 22.7	9.999130
Bordeaux (Floirac)	73	+44 50 7.2	+ 0 2 6.56	+ 0.35	+44 38 31.6	9.999281
Boston (University)[8]	31	+42 20 58	+ 4 44 19.1	+ 46.71	+42 9 25.6	9.999341
Bothkamp[9]	32	+54 12 9.6	− 0 40 31.2	− 6.65	+54 1 8.8	9.999042
Breslau Zentr. d. Sternw.	147	+51 6 56.5	− 1 8 8.72	− 11.19	+50 55 36.1	9.999126
Breslau Neue Sternw.[10]	117	+51 6 42.1	− 1 8 21.22	− 11.23	+50 55 21.7	9.999130
Brisbane	51	−27 28 23.0	−10 12 6.48	−100.55	−27 18 54.6	9.999694
Brüssel (Alte Sternw.) Pass. Instr.	56	+50 51 10.7	− 0 17 28.71	− 2.87	+50 39 49.0	9.999126
Brüssel (Uccle) Mer.-Kr.	105	+50 47 54.6	− 0 17 26.05	− 2.86	+50 36 32.7	9.999131
Budapest Univ.-Sternw.	110	+47 29 34.7	− 1 16 15.4	− 12.53	+47 18 1.5	9.999215
Budapest-Svábhegy	474	+47 29 58.5	− 1 15 51.47	− 12.46	+47 18 25.3	9.999240

[1]) Dudley Observatory, seit Juni 1893. Alte Sternwarte $37''.0$ nördlich, $7^s.10$ östlich. — [2]) Alte Sternwarte $3'.8$ südlich, 8^s östlich. — [3]) Seit Oktober 1872, früher in Florenz. — [4]) 1927 geschlossen und nach Bloemfontein verlegt. — [5]) J. Comas Solá. — [6]) Die Koordinaten beziehen sich auf die Mitte der großen Kuppel, in der der große Refraktor aufgestellt ist. Die frühere Sternwarte in Berlin (seit 1835) lag $5'\ 52''.5$ nördlich und $1^m\ 9^s.31$ östlich. — [7]) Übungssternwarte der Universität. — [8]) Die alte Sternwarte lag $4^s.1$ östlich, $34''.5$ nördlich. — [9]) Herr von Bülow. — [10]) Geogr. Breite des Vertikalkreises, Länge des Durchgangsinstruments.

Koordinaten der Sternwarten

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich − östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Budapest[1]	110	+47 28 49	−1 16 13.7	−12.53	+47 17 16	9.999215
Bukarest (Mil. Geogr. Inst.)	85	+44 24 34.2	−1 44 27.01	−17.16	+44 12 58.7	9.999292
Cambridge Engl.	28	+52 12 51.6	−0 0 22.75	− 0.06	+52 1 37.3	9.999090
Cambridge Mass.[2]	24	+42 22 47.6	+4 44 31.05	+46.74	+42 11 15.1	9.999340
Cap d. gut. Hoffnung	10	−33 56 6.8	−1 13 54.60	−12.14	−33 45 23.2	9.999547
Caracas (Observ. Cajigal)	1042	+10 30 24.3	+4 27 42.61	+43.98	+10 26 15.6	0.000023
Castel Gandolfo	—	+41 44 48	−0 50 36.4	− 8.31	+41 33 17	9.999354
Catania	47	+37 30 13.3	−1 0 20.60	− 9.91	+37 19 1.9	9.999466
Charkow	139	+50 0 9.9	−2 24 55.72	−23.81	+49 48 44.4	9.999153
Charlottenburg, Techn. Hochsch.	60	+52 30 48.7	−0 53 20.5	− 8.76	+52 19 36.2	9.999085
Charlottesville[3]	259	+38 2 1.2	+5 14 5.33	+51.60	+37 50 46.5	9.999464
Christiania (Oslo) Mer.-Kr.	25	+59 54 43.7	−0 42 53.51	− 7.04	+59 44 39.2	9.998908
Cincinnati (Alte Sternw.)	—	+39 6 26.5	+5 37 59.09	+55.52	+38 55 6.0	9.999421
Cincinnati (Neue Sternw.)[4]	247	+39 8 19.8	+5 37 41.40	+55.47	+38 56 59.1	9.999437
Cleveland (Case Obs.)	215	+41 30 14.5	+5 26 25.86	+53.63	+41 18 44.3	9.999375
Coimbra	99	+40 12 24.5	+0 33 43.1	+ 5.54	+40 0 58.9	9.999400
Columbia Missouri[5]	225	+38 56 12	+6 9 18.37	+60.67	+38 44 52.3	9.999442
Cordoba	434	−31 25 15.5	+4 16 47.16	+42.18	−31 14 57.5	9.999635
Danzig (Naturf. Ges.)	30	+54 21 18.0	−1 14 39.6	−12.26	+54 10 18.4	9.999036
Danzig (Stadt. Sternw.)	30	+54 21 37.9	−1 14 36.5	−12.26	+54 10 38.3	9.999036
Delaware (Perkins Obs.)	270	+40 15 4	+5 32 13.33	+54.58	+40 3 38	9.999410
Denver[6]	1644	+39 40 36.4	+6 59 47.72	+68.96	+39 29 13.1	9.999519
Dorpat (Tartu, Jurjew) Mer.-Kr.	67	+58 22 47.2	−1 46 53.18	−17.56	+58 12 25.1	9.998946
Dresden (Geodät. Inst.)	168	+51 1 49.3	−0 54 55.1	− 9.02	+50 50 28.5	9.999130
Dresden (Mathem. Salon)	—	+51 3 14.7	−0 54 55.83	− 9.02	+50 51 54.0	9.999117
Dublin (Dunsink Obs.)	86	+53 23 13.1	+0 25 21.1	+ 4.17	+53 12 6.4	9.999065
Düsseldorf (Bilk)	46	+51 12 25.0	−0 27 2.69	− 4.44	+51 1 5.1	9.999117
Dunlap Obs. (Toronto)	244	+43 51 46	+5 17 41.3	+52.19	+43 40 11	9.999317
Durban	79	−29 50 46.6	−2 4 1.18	−20.37	−29 40 47.0	9.999645
Durham	108	+54 46 6.2	+0 6 19.75	+ 1.04	+54 35 9.8	9.999033
Edinburgh	146	+55 55 30	+0 12 44.1	+ 2.09	+55 44 43.5	9.999008
Edinburgh (Blackf. Hill)	134	+55 55 28.0	+0 12 44.0	+ 2.09	+55 44 41.5	9.999007
Evanston (Dearborn Obs.)	175	+42 3 33.4	+5 50 42.3	+57.61	+41 52 1.6	9.999358
Faenza (Urania Lamonia)	45	+44 17 2	−0 47 33.9	− 7.81	+44 5 27	9.999293
Flagstaff (Lowell Obs.)	2210	+35 12 30.5	+7 26 44.6	+73.39	+35 1 35.8	9.999667
Florenz (Alte Sternw.)[7]	73	+43 46 4.1	−0 44 59.6	− 7.39	+43 34 29.2	9.999308
Florenz (Mil. Geogr. Inst.)	72	+43 46 49.4	−0 45 2.5	− 7.40	+43 35 14.5	9.999308
Frankfurt a. M.	121	+50 7 0	−0 34 36.3	− 5.70	+49 55 34.6	9.999149
Genf Mer.-Kr.	406	+46 11 59.3	−0 24 36.53	− 4.04	+46 0 24.1	9.999269
Genua (Mar. Sternw.) Mer.-Kr.	108	+44 25 8.1	−0 35 41.28	− 5.86	+44 13 32.6	9.999294
Georgetown D. C.	62	+38 54 26.2	+5 8 18.33	+50.65	+38 43 6.7	9.999430
Glasgow Schottl.	55	+55 52 42.1	+0 17 10.55	+ 2.82	+55 41 55.2	9.999003

[1]) Observ. der Kgl. Josef-Technischen Hochschule. — [2]) Harvard College Observatory. — [3]) Leander Mc. Cormick Observatory, University of Virginia. — [4]) Mount Lookout seit 1873. — [5]) Laws Observatory. — [6]) University Park, Chamberlin Observatory. — [7]) 1872 nach Arcetri verlegt.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich − östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Göttingen Mer.-Kr. . .	161	+51 31 48.2	−0 39 46.22	− 6.53	+51 20 30.0	9.999117
Gotha (Neue Sternw.) Zentr. d. St.[1]) . .	322	+50 56 37.9	−0 42 50.51	− 7.04	+50 45 16.7	9.999142
Graz	375	+47 4 37.2	−1 1 47.71	−10.15	+46 53 3.2	9.999244
Greenwich Transit Circle .	47	+51 28 38.2	0 0 0.00	0.00	+51 17 19.7	9.999110
Groningen	4	+53 13 13.8	−0 26 15.11	− 4.31	+53 2 6.0	9.999064
Grünwald[2])	599	+48 2 7	−0 46 6.55	− 7.58	+47 50 35	9.999235
Hamburg (Alte Sternw.) Mer.-Kr.[3])	25	+53 33 6.0	−0 39 53.60	− 6.55	+53 22 0.4	9.999057
Hamburg (D. Seewarte) .	30	+53 32 51.8	−0 39 53.42	− 6.55	+53 21 46.2	9.999058
Hanover N. H. . . .	183	+43 42 15.3	+4 49 8.00	+47.50	+43 30 40.5	9.999317
Haverford	116	+40 0 40.1	+5 1 12.7	+49.48	+39 49 15.4	9.999406
Heidelberg (Wolfs Sternw.)	126	+49 24 35	−0 34 48.4	− 5.72	+49 13 7	9.999159
Heidelberg (Königst.) Mer.-Kr. . .	570	+49 23 54.6	−0 34 53.13	− 5.73	+49 12 26.8	9.999198
Helsingfors Mer.-Kr. . .	33	+60 9 42.3	−1 39 49.10	−16.40	+59 59 40.8	9.998903
Helwan.	115	+29 51 31.1	−2 5 21.77	−20.59	+29 41 31.4	9.999648
Herrsching (München)	534	+47 59 55	−0 44 43.6	− 7.35	+47 48 23	9.999231
Hongkong	33	+22 18 13.2	−7 36 41.25	−75.02	+22 10 5.8	9.999793
Hyderabad-Deccan[4]) .	554	+17 25 54.3	−5 13 48.98	−51.55	+17 19 17.7	9.999907
Innsbruck	605	+47 16 6.5	−0 45 31.42	− 7.48	+47 4 32.8	9.999254
Istanbul (Univ. Sternw.) .	65	+41 0 45	−1 55 52	−19.03	+40 49 16	9.999377
Jena (Univers.) Zentr. d. St.	164	+50 55 35.6	−0 46 20.22	− 7.61	+50 44 14.3	9.999131
Jena (Winkler)	174	+50 56 15.7	−0 46 20.73	− 7.61	+50 44 54.5	9.999132
Johannesburg	1786	−26 10 52.1	−1 52 17.9	−18.45	−26 1 42.0	9.999839
Johannesburg (Fil. d. Yale Observ.)	1741	−26 11 14	−1 52 7	−18.42	−26 2 4	9.999836
Kairo	—	+30 4 38.2	−2 5 8.80	−20.56	+29 54 35.8	9.999635
Kalocsa[5])	102	+46 31 42.4	−1 15 54.34	−12.47	+46 20 7.6	9.999239
Karlsruhe[6])	110	+49 0 29.6	−0 33 35.40	− 5.52	+48 49 0.4	9.999177
Kasan (Univers.) . . .	79	+55 47 24.3	−3 16 29.03	−32.28	+55 36 36.6	9.999007
Kasan (Engelhardt) . .	98	+55 50 20.5	−3 15 15.74	−32.08	+55 39 33.2	9.999007
Kew	10	+51 28 6	+0 1 15.1	+ 0.21	+51 16 47.5	9.999108
Kiel Neuer Mer.-Kr. . . .	52	+54 20 27.6	−0 40 35.45	− 6.67	+54 9 27.9	9.999040
Kiel Alter Mer.-Kr. . . .	47	+54 20 28.5	−0 40 35.57	− 6.67	+54 9 28.8	9.999040
Kiew Mer.-Kr.	184	+50 27 11.8	−2 2 0.56	−20.04	+50 15 48.3	9.999145
Kital	658	+39 8 1.7	−4 27 31.7	−43.95	+38 56 41.0	9.999465
Kodaikanal	2343	+10 13 50	−5 9 52.0	−50.94	+10 9 47.6	0.000114
Königsberg Reps. Mer.-Kr.[7]) .	22	+54 42 50.6	−1 21 58.98	−13.47	+54 31 53.8	9.999029
Konstanz[8])	420	+47 39 43.6	−0 36 42.01	− 6.03	+47 28 10.7	9.999232
Kopenhagen (Neue Sternw.)[9]) .	14	+55 41 12.6	−0 50 18.69	− 8.26	+55 30 24.0	9.999005
Kopenhagen (Urania-Sternw.) .	10	+55 41 19.2	−0 50 9.11	− 8.24	+55 30 30.6	9.999005
Krakau Mer.-Kr. . . .	221	+50 3 51.9	−1 19 50.28	−13.11	+49 52 26.7	9.999158
Kremsmünster Mer.-Kr.	384	+48 3 23.1	−0 56 31.58	− 9.28	+47 51 51.1	9.999219

[1]) Seit 1857, früher Seeberg. — [2]) Privatsternwarte von Ph. Fauth. — [3]) 1909 nach Bergedorf verlegt. — [4]) Nizamiah Observatory. — [5]) Erzbischöfl. Haynaldsche Sternwarte. — [6]) 1896 nach Heidelberg verlegt. — [7]) Nach 1898, vor 1898 0^s01 westlich. — [8]) Privatsternwarte von E. Leiner. — [9]) Seit 1861 Nov. 11. Alte Sternwarte 20″3 südlich, 0^s03 westlich.

Koordinaten der Sternwarten

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich − östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Kyoto (Astron. Inst.) . .	55	+35 1 37.1	−9 3 7.0	−89.22	+34 50 43.9	9.999525
Kyoto (Kwasan Observ.) .	220	+34 59 40.3	−9 3 10.24	−89.23	+34 48 47.4	9.999537
Landstuhl (Fauth) . . .	385	+49 24 42.5	−0 30 16.35	− 4.97	+49 13 14.7	9.999185
La Plata Mer.-Kr. Gautier	17	−34 54 30.3	+3 51 43.74	+38.07	−34 43 38.1	9.999525
Leiden (Neue Sternw.) Mer.-Kr.[1] .	6	+52 9 19.8	−0 17 56.15	− 2.94	+51 58 5.2	9.999090
Leipzig (Neue Sternw.) Zentr.[2] .	119	+51 20 5.9	−0 49 33.93	− 8.14	+51 8 46.7	9.999119
Lembang (Bosscha St.) .	1300	− 6 49 29.1	−7 10 27.81	−70.71	− 6 46 45.5	0.000068
Lemberg (Techn. Hochsch.) Pass. Instr.	340	+49 50 11.2	−1 36 3.40	−15.78	+49 38 45.0	9.999171
Leningrad (Petersburg) (Akad.) .	20	+59 56 29.7	−2 1 13.35	−19.91	+59 46 25.5	9.998907
Leningrad (Petersburg) (Univers.) .	4	+59 56 32.0	−2 1 11.3	−19.91	+59 46 27.8	9.998906
Lissabon (Tapada) . . .	94	+38 42 30.5	+0 36 44.68	+ 6.04	+38 31 12.0	9.999437
Lissabon (Mar. Sternw.) .	—	+38 42 17.6	+0 36 33.6	+ 6.01	+38 30 59.2	9.999431
Liverpool (Neue Sternw.)[3]	62	+53 24 4.8	+0 12 17.33	+ 2.02	+53 12 58.2	9.999063
Lourenço Marques . .	60	−25 58 5.5	−2 10 22.63	−21.42	−25 48 58.9	9.999725
Lübeck (Navig.-Sch.) . .	19	+53 51 31.1	−0 42 45.6	− 7.02	+53 40 27.8	9.999049
Lund Zentr. d. Sternw. . .	34	+55 41 51.6	−0 52 44.97	− 8.66	+55 31 3.1	9.999006
Lüttich Ougrée . . .	128	+50 37 6	−0 22 12	− 3.65	+50 25 43	9.999137
Lyon	299	+45 41 40.8	−0 19 8.5	− 3.14	+45 30 5.3	9.999274
Madison (Washburn Observ.)	292	+43 4 36.8	+5 57 37.90	+58.75	+42 53 2.9	9.999340
Madras	7	+13 4 8.0	−5 20 59.65	−52.73	+12 59 2.5	9.999926
Madrid Zentr. d. Sternw. .	656	+40 24 30.1	+0 14 45.09	+ 2.43	+40 13 3.7	9.999433
Mailand, Brera . . .	120	+45 27 59.2	−0 36 45.89	− 6.04	+45 16 23.6	9.999268
Manila	3	+14 35 25	−8 3 50	−79.48	+14 29 47	9.999908
Mannheim Zentr. d. Sternw.	98	+49 29 11.0	−0 33 50.42	− 5.56	+49 17 43.5	9.999164
Marburg	248	+50 48 46.9	−0 35 4.9	− 5.76	+50 37 25.0	9.999141
Mare Island Calif. . .	18	+38 5 55.8	+8 9 5.63	+80.35	+37 54 40.8	9.999447
Markree (Col. Cooper) .	45	+54 10 31.7	+0 33 48.4	+ 5.56	+53 59 30.7	9.999043
Marseille (Neue Sternw.) Mer.-Kr.[4]	75	+43 18 19.1	−0 21 34.56	− 3.54	+43 6 44.8	9.999320
McDonald Observatory (Mount Locke)	2070	+30 40 13	+6 56 6.3	+68.36	+30 30 4	9.999763
Melbourne	28	−37 49 53.4	−9 39 54.17	−95.26	−37 38 39.9	9.999454
Merate (Filiale v. Mailand, Brera) .	380	+45 41 54.1	−0 37 42.85	− 6.20	+45 30 18.6	9.999279
Meudon	162	+48 48 18	−0 8 55.5	− 1.46	+48 36 48	9.999185
Middletown, Conn. . .	70	+41 33 18	+4 50 38.2	+47.74	+41 21 47.6	9.999364
Mizusawa	61	+39 8 3.4	−9 24 31.46	−92.74	+38 56 42.7	9.999424
Modena	63	+44 38 52.8	−0 43 42.8	− 7.18	+44 27 17.2	9.999285
Montreal	57	+45 30 20	+4 54 18.63	+48.35	+45 18 44.4	9.999263
Mt. Hamilton (Lick) Mer.-Kr. .	1283	+37 20 25.3	+8 6 34.86	+79.94	+37 9 14.9	9.999552
Mt. Wilson Calif. . .	1742	+34 12 59.5	+7 52 14.33	+77.57	+34 2 13.3	9.999659

[1]) Seit 1860. Alte Sternwarte 8″.0 nördlich, 0ˢ.42 östlich. — [2]) Seit 1861. Alte Sternwarte 14″.2 nördlich, 4ˢ.00 westlich. — [3]) Alte Sternwarte 44″.0 nördlich, 17ˢ.1 östlich. — [4]) Seit 1866. Alte Sternwarte 30″.1 südlich, 6ˢ.2 westlich; Seehöhe 29m.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich — östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Moskau Mer.-Kr. . . .	142	+55 45 19.5	−2 30 17.03	−24.69	+55 34 31.5	9.999012
Mundenheim[1]) . . .	—	+49 27 30	−0 33 44	— 5.54	+49 16 2	9.999158
München (West-Kuppel) .	529	+48 8 45.5	−0 46 26.02	— 7.63	+47 57 13.8	9.999227
Münster	75	+51 57 45.8	−0 30 29.66	— 5.01	+51 46 30.0	9.999100
Nashville (Vanderbilt Obs.)	174	+36 8 58.2	+5 47 12.81	+57.04	+35 57 56.1	9.999506
Neapel (Capo di Monte) .	154	+40 51 45.7	−0 57 1.40	— 9.37	+40 40 17.6	9.999387
Neuchâtel Refraktor . .	488	+46 59 49.5	−0 27 49.77	— 4.57	+46 48 15.4	9.999254
New Haven (Neue Stw.)[2])	40	+41 19 22.3	+4 51 40.58	+47.92	+41 7 52.7	9.999368
New York (Rutherfurd) .	—	+40 43 48.5	+4 55 56.66	+48.62	+40 32 20.9	9.999380
New York (Columb. Obs.)	—	+40 45 23.1	+4 55 53.73	+48.61	+40 33 55.4	9.999379
Nikolajew Mer.-Kr. . .	55	+46 58 19.3	−2 7 53.98	−21.01	+46 46 45.1	9.999225
Nizza Kl. Mer.-Kr.[3]) . .	378	+43 43 16.9	−0 29 12.15	— 4.79	+43 31 42.0	9.999330
Northfield (Goodsell Obs.)	290	+44 27 41.4	+6 12 35.94	+61.21	+44 16 5.9	9.999305
Oakland Californ.[4])	99	+37 47	+8 8 48	+80.30	+37 35 47	9.999460
Oak Ridge (Filiale d. Harvard Obs.)	183	+42 30 13	+4 46 14.2	+47.02	+42 18 40	9.999347
Odessa (Univ.-Stw.) Mer.-Kr.	55	+46 28 36.2	−2 3 2.05	−20.21	+46 17 1.3	9.999237
Odessa (Filiale Pulkowa) .	—	+46 28 36.0	−2 3 2.19	−20.21	+46 17 1.1	9.999234
Oslo (Christiania) Mer.-Kr..	25	+59 54 43.7	−0 42 53.51	— 7.04	+59 44 39.2	9.998908
Ottawa Mer.-Kr. . . .	85	+45 23 39.1	+5 2 51.98	+49.75	+45 12 3.5	9.999267
Oxford (Radcl. Obs.) . .	65	+51 45 33.9	+0 5 3.0	+ 0.83	+51 34 17.0	9.999104
Oxford (Univers.) . . .	64	+51 45 34.2	+0 5 0.4	+ 0.82	+51 34 17.3	9.999104
Oxford, Mississippi . .	140	+34 22 12.6	+5 58 7.18	+58.83	+34 11 25.1	9.999546
Padua	38	+45 24 1.2	−0 47 29.15	— 7.80	+45 12 25.6	9.999263
Palermo	72	+38 6 44.0	−0 53 25.87	— 8.78	+37 55 28.9	9.999451
Paris (Obs. nat.) Mer. Cassini	59	+48 50 11.2	−0 9 20.93	— 1.53	+48 38 41.5	9.999177
Paris (Montsouris) westl. Mer.	—	+48 49 18.0	−0 9 20.6	— 1.53	+48 37 48.2	9.999174
Peking	—	+39 54 23.0	−7 45 52.87	−76.53	+39 42 58.7	9.999401
Perkins Obs. (Delaware)	270	+40 15 4	+5 32 13.33	+54.58	+40 3 38	9.999410
Perth, West-Austr. . .	60	−31 57 10.7	−7 43 21.62	−76.12	−31 46 46.9	9.999597
Petersburg (Leningrad) (Akademie) .	20	+59 56 29.7	−2 1 13.35	−19.91	+59 46 25.5	9.998907
Petersburg (Leningrad) (Univers.) .	4	+59 56 32.0	−2 1 11.3	−19.91	+59 46 27.8	9.998906
Philadelphia[5])	74	+39 58 2.1	+5 1 6.88	+49.47	+39 46 37.5	9.999404
Pic du Midi (Filiale v.) (Toulouse) .	2850	+42 56 31.5	−0 0 34.29	— 0.09	+42 44 57.8	9.999518
Plonsk[6])	—	+52 37 40.0	−1 21 31.9	−13.39	+52 26 28.2	9.999078
Pola	32	+44 51 48.6	−0 55 23.07	— 9.10	+44 40 12.9	9.999277
Porto Alegre[7]) Mer.-Kr..	—	−30 1 51	+3 24 53.2	+33.66	−29 51 49	9.999636
Posen	85	+52 23 48.6	−1 7 30.60	−11.09	+52 12 35.4	9.999090

[1]) Dr. Max Mündler. — [2]) Yale University. Alte Sternwarte 45″.8 südlich, 1s.58 westlich. — [3]) Herr R. Bischoffsheim. — [4]) Chabot Observatory. — [5]) Flower Obs. (Univ. of Pennsylvania). — [6]) Dr. Jedrzejewicz; 1898 nach Warschau verlegt. — [7]) Observatorio Regional do Rio Grande do Sul.

Koordinaten der Sternwarten

Name	See-höhe	Geogr. Breite	Länge von Greenwich + westlich − östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Potsdam (Astrophys. Obs.).	97	+52 22 56.0	− 0 52 15.86	− 8.58	+52 11 42.7	9.999091
Potsdam (Geod. Inst.) Turm	99	+52 22 54.8	− 0 52 16.11	− 8.58	+52 11 41.5	9.999091
Poughkeepsie[1] . . .	61	+41 41 18	+ 4 55 35.2	+48.56	+41 29 47	9.999360
Prag (Univ.-Stw.) Turm . .	197	+50 5 16.0	− 0 57 40.29	− 9.47	+49 53 50.9	9.999155
Prag (Safarik)	—	+50 4 24	− 0 57 48	− 9.49	+49 52 59	9.999142
Princeton N. J. (N.Stw.)[2]	75	+40 20 55.8	+ 4 58 39.44	+49.06	+40 9 29.7	9.999395
Providence[3]	171	+41 49 46.4	+ 4 45 37.64	+46.92	+41 38 15.2	9.999363
Pulkowa Zentr. d. Stw. .	75	+59 46 18.5	− 2 1 18.57	−19.93	+59 36 12.3	9.998914
Pulsnitz[10]	284	+51 10 54.6	− 0 56 4.18	− 9.21	+50 59 34.6	9.999134
Quebec Canada . . .	90	+46 47 59.2	+ 4 44 52.71	+46.80	+46 36 24.8	9.999231
Quito	2846	− 0 14 0	+ 5 13 58.20	+51.58	− 0 13 54	0.000194
Riga (Polytechnikum) Turm	—	+56 57 7	− 1 36 28.11	−15.84	+56 46 30	9.998974
Rio de Janeiro. . . .	63	−22 54 23.7	+ 2 52 41.52	+28.37	−22 46 6.0	9.999784
Rio de Janeiro (N. Stw.)	33	−22 53 42.1	+ 2 52 53.6	+28.40	−22 45 24.7	9.999782
Rom (Coll. Rom.) Mer.-Kr.	59	+41 53 53.6	− 0 49 55.36	− 8.19	+41 42 22.3	9.999354
Rom (Capitol) Mer.-Kr. . .	65	+41 53 33.2	− 0 49 56.34	− 8.20	+41 42 1.9	9.999355
Rom (Vatican) Mer.-Kr.[9]	100	+41 54 12.4	− 0 49 48.26	− 8.18	+41 42 41.1	9.999357
Rousdon	157	+50 42 38	+ 0 11 58.9	+ 1.96	+50 31 16	9.999137
Rugby	119	+52 22 30	+ 0 5 2.0	+ 0.83	+52 11 16.7	9.999093
St. Louis Missouri . .	—	+38 38 3.6	+ 6 0 49.15	+59.28	+38 26 45.5	9.999433
Saltsjöbaden (Stockholms Observator.)	55	+59 16 18	− 1 13 14	−12.03	+59 6 6	9.998924
San Fernando	30	+36 27 42.0	+ 0 24 49.30	+ 4.08	+36 16 37.7	9.999488
San Francisco[4] . . .	—	+37 47 28.0	+ 8 9 42.81	+80.45	+37 36 14.8	9.999453
Santiago de Chile (N. St.)	580	−33 33 44.2	+ 4 42 46.0	+46.44	−33 23 4.1	9.999595
Santiago de Chile (A. St.)	619	−33 26 25.4	+ 4 42 36.9	+46.42	−33 15 46.4	9.999600
Sétif	1120	+36 11 10	− 0 21 38.6	− 3.55	+36 0 7.7	9.999569
Simeïs	360	+44 24 11.6	− 2 15 59.38	−22.34	+44 12 36.1	9.999312
Sofia (Mil. Geogr. Jnst.). .	555	+42 41 51	− 1 33 19.87	−15.33	+42 30 18	9.999368
Sofia (Universitätssternwarte)	572	+42 41 1.7	− 1 33 23.3	−15.34	+42 29 28.5	9.999369
Sonneberg (Hoffmeister) .	405	+50 21 29.5	− 0 44 42.87	− 7.34	+50 10 5.5	9.999163
Sonneberg (Erbisbühl). .	640	+50 22 41.4	− 0 44 46.19	− 7.36	+50 11 17.5	9.999178
South Hadley	76	+42 15 18.2	+ 4 50 19	+47.69	+42 3 45.9	9.999346
Stalinabad (Tadjik Observ.)	—	+38 33 30	− 4 35 6.2	−45.19	+38 22 12	9.999434
Stará Dala[5]	113	+47 52 27.3	− 1 12 45.49	−11.95	+47 40 54.9	9.999206
Stockholm (Alte St.) M.-Kr.[6]	44	+59 20 32.7	− 1 12 13.97	−11.86	+59 10 21.4	9.998922
Stonyhurst	116	+53 50 40.0	+ 0 9 52.7	+ 1.62	+53 39 36.5	9.999056
Straßburg (N.St.).M.-Kr.[7]	144	+48 35 0.4	− 0 31 4.53	− 5.10	+48 23 29.9	9.999190
Sydney.	44	−33 51 41.1	−10 4 49.54	−99.36	−33 40 58.2	9.999551
Sydney (Riverview Coll. Obs.)	42	−33 49 49	−10 4 38.0	−99.33	−33 39 6	9.999552
Tacubaya[8]	2311	+19 24 17.9	+ 6 36 46.71	+65.18	+19 17 3.0	9.999997
Tartu (Dorpat, Jurjew) Mer.-Kr.	67	+58 22 47.2	− 1 46 53.19	−17.56	+58 12 25.1	9.998946
Taschkent Mer.-Kr.. . .	475	+41 19 31.6	− 4 37 10.88	−45.53	+41 8 2.0	9.999397

[1]) Vassar College. — [2]) Alte Sternwarte 2″.0 nördlich, $1^s.94$ östlich; 65^m. — [3]) Seagrave. Ladd Observatory 35″ nördlich, $1^s.57$ östlich. — [4]) Davidson Observatory. — [5]) Früher O-Gyalla. — [6]) Neue Sternwarte seit 1931 in Saltsjöbaden. — [7]) Seit Anfang 1881. — [8]) Seit März 1883, früher in Chapultepec. — [9]) 1933 nach Castel Gandolfo verlegt. — [10]) Privatsternwarte des Herrn Classen.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich — östlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Teramo (Cerulli)	398	+42 39 27	— 0 54 55.8	— 9.02	+42 27 54	9.999358
Tokio Mer.-Kr.	57	+35 40 19	— 9 18 9.90	— 91.69	+35 29 21	9.999509
Toronto (Univ. Obs.) . .	110	+43 39 46.0	+ 5 17 34.70	+ 52.17	+43 28 11.2	9.999313
Toronto (Dunlap Obs.) . .	244	+43 51 46	+ 5 17 41.3	+ 52.19	+43 40 11	9.999317
Tortosa (Ebro-Stw.) M.-Kr.	54	+40 49 14	— 0 1 58	— 0.32	+40 37 46	9.999382
Toulouse Mer.-Kr. . . .	195	+43 36 44.0	— 0 5 51.01	— 0.96	+43 25 9.3	9.999329
Triest (R. Oss. Astr.) . . .	68	+45 38 35.5	— 0 55 4.92	— 9.05	+45 27 0.0	9.999259
Tsingtau (Met.-astr. Stat.).	—	+36 4 11.3	— 8 1 16.21	— 79.06	+35 53 9.8	9.999496
Tucson Arizona (Steward Obs.) .	757	+32 13 59.4	+ 7 23 47.68	+ 72.90	+32 3 32.6	9.999638
Turin Mer.-Kr.	276	+45 4 7.9	— 0 30 47.15	— 5.06	+44 52 32.2	9.999288
Turin (Pino Torinese) .	618	+45 2 16.3	— 0 31 6.52	— 5.11	+44 50 40.6	9.999312
Upsala (N. Stw.) Pass.-Instr.	21	+59 51 29.4	— 1 10 30.13	— 11.58	+59 41 24.2	9.998909
Urbana Jll.	236	+40 6 20.2	+ 5 52 53.90	+ 57.97	+39 54 55.1	9.999412
Utrecht.	12	+52 5 9.5	— 0 20 31.6	— 3.37	+51 53 54.4	9.999093
Valkenburg (Ignatius Coll.)	100	+50 52 29.3	— 0 23 19.91	— 3.83	+50 41 7.8	9.999129
Venedig	15	+45 26 10.5	— 0 49 22.12	— 8.11	+45 14 34.9	9.999261
Victoria B.C. (Dominion Obs.)	229	+48 31 15.7	+ 8 13 40.17	+ 81.18	+48 19 45.0	9.999197
Warschau[1]) Zentr. d. Stw.	121	+52 13 4.6	— 1 24 7.25	— 13.82	+52 1 50.3	9.999097
Warschau[2])	—	+52 13 10	— 1 24 4.8	— 13.81	+52 1 56	9.999088
Warschau (Techn.Hochsch.)	144	+52 13 21.0	— 1 24 2.4	— 13.81	+52 2 6.8	9.999098
Washington (Alte Stw.) .	31	+38 53 38.9	+ 5 8 12.13	+ 50.63	+38 42 19.4	9.999428
Washington (Neue Stw.) .	82	+38 55 14.0	+ 5 8 15.78	+ 50.64	+38 43 54.4	9.999431
Washington (Kath. Univ.)	—	+38 56 14.8	+ 5 8 0.0	+ 50.60	+38 44 55.1	9.999425
Wellington Transit Instr.[3])	127	—41 17 3.8	—11 39 4.27	—114.84	—41 5 34.3	9.999375
West Point N. Y. (N.Stw.)[4])	170	+41 23 22.1	+ 4 55 50.6	+ 48.60	+41 11 52.3	9.999375
Wien (Alte Sternw.) . . .	167	+48 12 35.5	— 1 5 31.61	— 10.76	+48 1 3.9	9.999201
Wien (Josephstadt)[5]) . . .	214	+48 12 53.8	— 1 5 25.17	— 10.74	+48 1 22.2	9.999204
Wien (Neue Sternw.) Zentr.	240	+48 13 55.3	— 1 5 21.35	— 10.73	+48 2 23.8	9.999205
Wien (Ottakring)[6]) . . .	285	+48 12 46.7	— 1 5 10.97	— 10.71	+48 1 15.1	9.999209
Wien (Mil. Geogr. Inst.) .	211	+48 12 40.5	— 1 5 26.24	— 10.75	+48 1 8.9	9.999203
Wien (Techn. Hochschule) .	198	+48 11 58.3	— 1 5 29.76	— 10.76	+48 0 26.7	9.999204
Wilhelmshaven Mer.-Kr.	9	+53 31 52.1	— 0 32 35.15	— 5.35	+53 20 46.4	9.999057
Williams-Bay Wisc.[7]) .	334	+42 34 12.6	+ 5 54 13.24	+ 58.19	+42 22 39.6	9.999356
Williamstown Mass. .	213	+42 42 49	+ 4 52 53.5	+ 48.12	+42 31 16	9.999344
Wilna Pass.-Instr. . . .	122	+54 40 59.1	— 1 41 8.76	— 16.61	+54 30 2.1	9.999036
Windhuk	—	—22 32	— 1 8 14	— 11.21	—22 24	9.999787
Wolfersdorf	279	+50 47 20.0	— 0 46 50.94	— 7.70	+50 35 58.0	9.999143
Zô-sè China	100	+31 5 47.6	— 8 4 44.75	— 79.63	+30 55 33.2	9.999619
Zürich Meridian-Kreis . .	468	+47 22 38.3	— 0 34 12.3	— 5.62	+47 11 4.8	9.999242

[1]) Universitäts-Sternwarte. — [2]) Dr. Jedrzejewicz; seit 1898, früher in Plonsk. — [3]) Dominion Observatory. — [4]) Seit 1883. Alte Sternwarte 9″ nördlich, $1^{s}2$ östlich. — [5]) von Oppolzers Sternwarte. — [6]) v. Kuffner. — [7]) Yerkes Observatory.

Normalzeiten der wichtigeren Länder

a) An den Meridian von Greenwich angeschlossen

Normalzeit = Mittl. Ortszeit des Meridians	Bezeichnung	Staaten
östl. Gr. h m		
11 30	—	Neu Seeland
10 0	Ostaustralische Z.	Victoria, Neu Süd-Wales, Queensland, Tasmanien
9 30	—	Süd-Australien
9 0	—	Japan, Korea
8 0	Ostchinesische Küsten-Z.	Ostküste von China, West-Australien
7 0	Südchinesische Küsten-Z.	Südküste von China, Franz. Indochina, Siam
5 30	—	Indien, Ceylon
4 0	—	Europ. Rußland*) von 40° bis 52° 30′ östl. Länge
3 0	—	Europ. Rußland*) westl. von 40° östl. Länge
2 30	—	Deutsch Ostafrika
2 0	Osteuropäische Z.	Finnland, Estland, Lettland, Bulgarien, Rumänien, Griechenland, Türkei, Palästina, Ägypten, Süd-Afrika, Deutsch Südwest-Afrika
1 0	Mitteleuropäische Z. (M. E. Z.)	Norwegen, Schweden, Dänemark, Deutschland, Österreich, Ungarn, Schweiz, Italien, Litauen, Polen, Tchechoslovakei, Jugoslavien, Kamerun
h m 0 0	Westeuropäische Z. (Greenwich Z.)	Belgien, Frankreich, Großbritannien und Irland, Luxemburg, Portugal, Spanien, Gibraltar, Algerien
westl. Gr. h m		
1 0	—	Island, Madeira, Kanarische Inseln
2 0	—	Azoren, Kap Verdesche Inseln, Grönland-Scoresbysund
3 0	—	Ost-Brasilien, Grönland - Westküste und Angmagsalik
	—	Argentinien (1. Nov.—Ende Febr.)
	—	Uruguay (Nov.—März)
3 30	—	Uruguay (April—Okt.)
4 0	Atlantic St. Time	Mittel-Brasilien, Argentinien (1. März—31. Okt.), Canada (Küste), Paraguay, Chile
4 30	—	Venezuela
4 33	—	Bolivien
5 0	Eastern St. Time	Canada (Quebec, Ontario zwisch. 68° u. 90° westl.), Verein. Staat. (Ost-Zone), Panama, Peru, West-Brasilien, Columbien
6 0	Central St. Time	Zentral-Zone von Canada u. v. d. Verein. Staaten, Mexico, mit Ausnahme des nördl. Teiles
7 0	Mountain St. Time	Gebirgszone von Canada u. v. d. Verein. Staaten
8 0	Pacific St. Time	Vereinigte Staaten (Pacifische Küste), Britisch Columbien, nördl. Mexico
10 30	—	Hawaii (Sandwich Inseln)

*) Im Gebiet der Sowjet-Republiken sind alle Uhren 1 Stunde vorgestellt.

b) Nicht an den Meridian von Greenwich angeschlossen

Staaten	Meridian	Längendifferenz gegen Greenwich
Ecuador	Quito	5h 14m 6.7s W.
Niederlande	Amsterdam	0 19 32.1 O.

Besondere Erläuterungen zu den Angaben und zum Gebrauch des Jahrbuchs.

Das Jahrbuch gibt die Örter der *Wandelsterne* in geozentrischen und in heliozentrischen Koordinaten. Die Zeitpunkte, für die sie gelten, sind in Welt-Zeit ausgedrückt, wenn nicht ausdrücklich eine andere Zeit angegeben wird. **Welt-Zeit ist identisch mit Bürgerlicher Zeit Greenwich.** Der bürgerliche Tag beginnt um Mitternacht, die Welt-Zeit-Stunden sind von 0^h bis 24^h durchgezählt. Die Beziehung zu der bis zum Jahrgang 1924 (einschließlich) im Jahrbuch verwendeten Mittleren Zeit Greenwich besteht darin, daß der astronomische mittlere Tag erst am Mittag des bürgerlichen Tages, also 12^h nach dessen Anfang beginnt. Somit ist 1925 Jan. 1, 0^h Welt-Zeit gleich 1924 Dez. 31, 12^h Mittlere Zeit Greenwich.

Die Örter der *Fixsterne* sind gegeben als »Mittlere Sternörter«, bezogen auf das mittlere Äquinoktium des Jahresanfangs, und in Ephemeridenform als »Scheinbare Sternörter«, bezogen auf das instantane wahre Äquinoktium.

Zur Erläuterung ist im einzelnen folgendes zu bemerken:

Sonnenephemeride (S. 2—29 und 100—108).

Der erste Teil der Sonnenephemeride (S. 2—19) gibt auf den linken Seiten für 0^h Welt-Zeit an jedem Tage:

1) Die Zeitgleichung = Wahre Zeit *minus* Mittlere Zeit.

2) Die geozentrischen, äquatorialen Koordinaten α, δ des scheinbaren Sonnenorts, bezogen auf das jedesmalige wahre Äquinoktium, zugleich mit der ersten Differenzenreihe. Diese Angaben sind direkt mit den Beobachtungen vergleichbar. Die Nutationsglieder kurzer Periode sind, wie im Vorwort erwähnt, in den Koordinaten nicht enthalten.

3) Die halbe Durchgangsdauer (in Sternzeit) der Sonnenscheibe durch den Meridian.

4) Den geozentrischen Halbmesser der Sonnenscheibe, d. i. der Winkel, unter dem der Sonnenhalbmesser vom Erdmittelpunkt aus erscheint.

Die rechten Seiten geben:

1) Die Julianische Zeit, d. i. die Anzahl der seit Beginn der Julianischen Periode verflossenen mittleren Sonnentage.

2) Die Sternzeit für 0^h Welt-Zeit. In ihr sind, wie im Vorwort erwähnt, nur die langperiodischen Glieder der Nutation enthalten.

Um für einen Erdort der westlichen Längendifferenz $\Delta\lambda$ (in Stunden) gegen Greenwich die Sternzeit in seiner mittleren Mitternacht zu erhalten, ist zu diesen Angaben hinzuzulegen: $9^s\!.8565\ \Delta\lambda$. Diese Werte finden sich unter der Überschrift: »Korr. der Sternzeit« im Verzeichnis der Sternwarten.

3) Die Nutation in Rektaszension getrennt nach langperiodischen und kurzperiodischen Gliedern.

4) Die geozentrischen ekliptikalen Koordinaten λ, β der Sonne, bezogen auf das mittlere Äquinoktium des Jahresanfangs, sowie log R, den Logarithmus der Entfernung R der Erde von der Sonne. Diese Angaben finden bei Bahnberechnungen u. dergl. Verwendung.

5) Die bürgerlichen Ortszeiten des Aufgangs und Untergangs der Sonne für einen Ort des Nullmeridians in $+50°$ Breite; sie sind mit der Horizontalrefraktion $34'$ berechnet und gelten für den oberen Rand der Sonne. Um daraus für einen beliebigen anderen Ort zwischen $+30°$ und $+60°$ geographischer Breite die entsprechenden Angaben zu erhalten, ist die Tabelle S. 334*, 335* zu benutzen.

Auf S. 20—28 folgen, bezogen auf das mittlere Äquinoktium des Jahresanfangs, die rechtwinkligen, geozentrischen, äquatorialen Sonnenkoordinaten für 0^h Welt-Zeit mit ihren ersten und zweiten Differenzen. Die gleichen Koordinaten, jedoch bezogen auf das Normaläquinoktium 1950.0, werden auf S. 100—108 gegeben.

Die Werte von X, Y, Z sind auf 6 Dezimalen gegeben. Die Ephemeriden bieten jedoch die Möglichkeit, die Sonnenkoordinaten auch auf 7 Dezimalen zu entnehmen. Zu diesem Zwecke füge man an die 6-stelligen Werte eine Null an und vereinige sie algebraisch mit den Werten von ΔX, ΔY, ΔZ. Ein ausführliches Beispiel hierfür ist im Jahrgang 1933, S. 362* gegeben.

Die gleichen Vorschriften gelten für die auf das Normaläquinoktium 1950.0 bezogenen Sonnenkoordinaten auf S. 100—108.

Am Fuß der Seite 28 finden sich die Zeiten für die Anfänge der Jahreszeiten und für die Erdnähe und Erdferne der Sonne.

Die Seite 29 enthält die Aberration, Parallaxe, mittlere Länge $L_\odot$ und mittlere Anomalie $M_\odot$ der Sonne im Intervall von je 10 Tagen.

Mondephemeride (S. 30—48).

Die Mondephemeride (S. 30—47) gibt auf den linken Seiten für 0^h Welt-Zeit:

1) Die scheinbare Rektaszension und Deklination des Mondmittelpunktes mit den ersten Differenzen.

2) Die Äquatorial-Horizontalparallaxe $p_☾$ des Mondes.

3) Den geozentrischen Mondhalbmesser $r_☾$, d. i. der Winkel, unter dem der Mondhalbmesser vom Erdmittelpunkt aus erscheint.

4) Die Länge und Breite des Mondes, abgekürzt auf $0°\!.001$.

Die rechten Seiten enthalten:

1) Für den oberen Durchgang des Mondes durch den Meridian von Greenwich die genäherten Angaben für die Rektaszension, Deklination und Parallaxe des Mondmittelpunktes, sowie die bürgerliche Greenwicher Zeit dieses Durchgangs, nebst den Änderungen für 1^h westlicher Längendifferenz.

2) Die bürgerlichen Ortszeiten des Aufgangs und Untergangs des Mondes für einen Ort des Nullmeridians in $+50°$ Breite nebst Änderung für 1^h westlicher Längendifferenz; sie sind mit der Horizontalrefraktion 34′ berechnet und gelten für den oberen Rand des Mondes. Um daraus für einen beliebigen anderen Ort zwischen $+30°$ und $+60°$ geographischer Breite die entsprechenden Angaben zu erhalten, ist die Tabelle S. 336*, 337* zu benutzen.

Seite 48 enthält die Zeitangaben für die Phasen und die Erdnähe und Erdferne des Mondes.

Ephemeriden der Großen Planeten (S. 49—99 und 109—112).

Die geozentrischen Örter der Planeten sind für Merkur, Venus, Mars, Jupiter, Saturn von Tag zu Tag, für Uranus, Neptun und Pluto von 4 zu 4 Tagen für 0^h Welt-Zeit mit ihren ersten Differenzen gegeben. Für die Planeten Merkur bis Neptun sind scheinbare, auf das momentane wahre Äquinoktium bezogene Örter gegeben. Die Örter von Pluto sind auf das mittlere Äquinoktium 1950.0 bezogen und sind nicht wegen Aberration korrigiert. Zur bequemeren Vergleichung der Beobachtungen mit der Ephemeride sind bei diesem Planeten Fixsternaberration und Lichtzeit in besonderen Spalten angeführt. Die letzte Spalte gibt die bürgerliche Zeit (Greenwich) der oberen Kulmination in Greenwich.

Die Örter von Pluto sind nach den Elementen XIX von E. C. Bower, Lick Observatory Bulletin 437, unter Berücksichtigung der Störungen durch Jupiter, Saturn, Uranus und Neptun berechnet.

Die scheinbaren Halbmesser in der Einheit der Entfernung sind:

Merkur	3″34	Saturn (äquat.)	83″33
Venus	8.41	» (polar)	74.57
Mars	4.68	Uranus	34.28
Jupiter (äquat.)	98.47	Neptun	36.56
» (polar)	91.91		

Die heliozentrischen Ephemeriden der Planeten (S. 109—112) geben den Log. des Radiusvector, die Länge, deren Reduktion auf die Bahn und die Breite bezogen auf das mittlere Äquinoktium 1950.0. ☊ und i stellen die Bahnlage für die Epoche 1950.0 und das Normaläquinoktium 1950.0 dar.

Die Genauigkeit und Ausführlichkeit dieser heliozentrischen Angaben sind ihrem Hauptzweck, zur Berechnung der speziellen Störungen zu dienen, angepaßt.

Die beigefügten Werte der Planetenmassen sind die den Tafeln von Newcomb und von Hill zugrunde liegenden. Für die Erde ist

noch besonders zu erwähnen, daß die Masse von »Erde + Mond« gegeben ist, Radiusvector und heliozentrische Länge sich auf den Schwerpunkt des Systems »Erde + Mond« beziehen.

Mittlere Örter von 925 Fixsternen (S. 2*—25*).

Die mittleren Örter der 925 Fixsterne sind aus den Daten der Veröffentlichung Nr. 33 des *Königlichen Astronomischen Rechen-Instituts* mit den daselbst angegebenen Hilfsgrößen für Präzession und Eigenbewegung abgeleitet worden. Nur die mittleren Örter der 20 Polsterne sind durch numerische Integration berechnet. Zum Übergang auf die Örter des Dritten Fundamentalkataloges dienen die Angaben auf den Seiten 371*—382*.

Ein * vor dem Namen weist auf eine Anmerkung am Fuß der Seite hin.

Unter Gr. stehen die visuellen Größen, welche aus der »Revised Harvard Photometry« in »Harvard Annals, vol. 50« entnommen sind, sofern nichts anderes bemerkt ist. Wo für einen Stern zwei Größen gegeben sind, beziehen sich diese auf die Komponenten eines Doppelsterns. Die in den Anmerkungen gegebenen Größen für Doppelsternkomponenten und für die Extrema der Veränderlichen sind dem »Henry Draper Catalogue« entnommen.

Die Spektren sind aus dem Draper Katalog übernommen worden. Zusammengesetzte Spektren sind durch + gekennzeichnet. In anderen Fällen beziehen sich, wo 2 Spektren gegeben sind, diese auf die Komponenten eines Doppelsterns.

Scheinbare Örter von 579 Fixsternen (S. 26*—235*).

Die scheinbaren Rektaszensionen und Deklinationen der Fixsterne sind für den Moment der oberen Kulmination im Meridian von Greenwich gegeben.

Die Ephemeriden der 555 Sterne mit Deklinationen kleiner als 80°, deren scheinbare Örter von 10 zu 10 Sterntagen gegeben sind, enthalten die kurzperiodischen Mondglieder der Nutation nicht. Das Datum des Tages, an welchem zwei Kulminationen stattfinden, ist in kleinem Druck vor der Rektaszensionsspalte angeführt.

Die jährliche Parallaxe ist bei folgenden Sternen berücksichtigt, bei denen sie hinreichend verbürgt erscheint, nämlich:

Nr. 59	τ Ceti	mit	0.″315		Nr. 538	α Centauri	mit	0.″758
Nr. 127	ε Eridani	»	0.310		Nr. 667	μ Herculis	»	0.111
Nr. 257	α Can. maj.	»	0.371		Nr. 695	χ Draconis	»	0.118
Nr. 291	α Can. min.	»	0.312		Nr. 699	α Lyrae	»	0.124
Nr. 295	β Geminor.	»	0.101		Nr. 745	α Aquilae	»	0.204
Nr. 444	β Leonis	»	0.101		Nr. 793	61 Cygni pr.	»	0.300
Nr. 445	β Virginis	»	0.101		Nr. 819	δ Capricorni	»	0.114
Nr. 470	8 Can. ven.	»	0.107		Nr. 875	Br 3077	»	0.145
Nr. 492	43 Comae	»	0.133					

Von den im B. J. nicht mit Ephemeriden versehenen Sternen des NFK besitzen noch folgende hinreichend verbürgte Parallaxen: Nr. 119 e Eridani 0".161, Nr. 135 δ Eridani 0".137, Nr. 217 γ Leporis 0".149 und Nr. 825 ε Indi 0".281.

Die Ephemeriden der auf S. 2*—24* eingeklammerten Sterne findet man im Almanaque Nautico.

Es folgen die scheinbaren Örter von 20 Polsternen für jede obere Kulmination. Sie enthalten die kurzperiodischen Mondglieder nicht, jedoch sind deren Werte in besonderen Spalten gegeben.

Am Fuße der Ephemeriden ist der mittlere Ort eines jeden Sternes für den Anfang des Jahres und die Werte von sec δ und tg δ angegeben, welche bei der Reduktion der Meridianbeobachtungen nach der hierfür am zweckmäßigsten erscheinenden Besselschen Formel gebraucht werden. Ferner sind hier die Größen a, b, a', b' enthalten, mit deren Hilfe die Nutationsglieder kurzer Periode leicht berechnet werden können. Man erhält $A'a + B'b$ in Zeitsekunden, $A'a' + B'b'$ in Bogensekunden.

Auf den Seiten 226*—235* sind die scheinbaren, rechtwinkligen Koordinaten von vier polnahen Sternen gegeben. Sie beziehen sich auf ein Koordinatensystem, dessen positive x-Achse nach dem Frühlingspunkt und dessen positive y-Achse nach dem Punkt $\alpha = 6^h$, $\delta = 0°$ gerichtet ist. Der Zusammenhang zwischen x, y und α, δ ist gegeben durch die Beziehungen: $x = \cos\delta \cos\alpha$, $y = \cos\delta \sin\alpha$. Die Angaben gelten für 12^h Sternzeit Greenwich und enthalten die kurzperiodischen Mondglieder der Nutation nicht, deren Werte jedoch in der letzten Spalte einer jeden Seite unter der Überschrift »Kurzperiod. Nutationsgl.« gegeben sind.

Als Quellen für die Koordinaten und Eigenbewegungen dieser vier Sterne sind benutzt worden:

für BD + 89° 1: L. Courvoisier: Beobachtungen des Sterns BD 89° 1 am großen Meridiankreis der Berliner Sternwarte. Astron. Nachr. Bd. **200**, 243,

für BD + 89° 3: L. Courvoisier: Ephemeriden der Polsterne BD 89° 3 und BD 89° 37 für 1923. Astron. Nachr. Bd. **217**, 319,

für BD + 89° 37: L. Courvoisier: Neue Position und Eigenbewegung des Polsterns BD + 89° 37. Astron. Nachr. Bd. **230**, 71,

für CPD — 89° 38: Cape Annals Bd. **XI**, II, 244 für den Ort und eine briefliche Mitteilung für die Eigenbewegung.

Mit den an diesen Stellen gegebenen Werten findet man folgende mittlere Örter für 1939.0:

Name	Gr.	x	Jährliche Veränd. 1939.5	Jährliche Eigenbew.	y	Jährliche Veränd. 1939.5	Jährliche Eigenbew.
	M	"	"	"	"	"	"
BD+89° 1	10.56	— 259.80	—20.085	—0.024	+ 78.91	—0.068	—0.008
BD+89° 3	9.06	— 59.94	—20.240	—0.003	+863.58	—0.021	—0.006
BD+89° 37	10.06	—1041.60	—19.978	—0.011	—345.01	—0.220	+0.015
CPD—89° 38	9.5	— 46.36	+20.140	+0.027	—307.45	+0.023	+0.031

Reduktionsgrößen (S. 236*—276*).

Auf die scheinbaren Örter der Sterne folgt S. 236* eine Zusammenstellung der Werte, mit welchen die Reduktionsgrößen der darauf folgenden Tafeln berechnet sind, und der Formeln für die Reduktion auf den scheinbaren Ort.

Die Größen zur »Reduktion auf den scheinbaren Ort« sind in ihrer *ersten* Form: A, B, C, D, E; A', B' gegeben für 12^h Sternzeit des Meridians von Greenwich:

1) Auf S. 237* im Intervall von 10 Sterntagen.

Diese Tafel soll zur Berechnung von Sternephemeriden für die Epochen der Meridiandurchgänge dienen. Wegen ihrer logarithmischen Form und des großen Intervalls ist die Tafel zur Interpolation nicht geeignet. Man wird deshalb zweckmäßig die Interpolation erst nach der Summierung der einzelnen unmittelbar für die Epochen der Tafel berechneten Glieder vornehmen.

2) Auf S. 256*—264* für jeden Sterntag. Hier sind die numerischen Werte von A, B, C und D mit ihren Differenzen gegeben und die kurzperiodischen Nutationsglieder A' und B' mit angeführt.

Beiden Tafeln ist in einer Spalte die dem festen Sternzeitmoment jedesmal entsprechende Welt-Zeit vorangestellt; man wird hiernach auf jeden beliebigen Zeitpunkt, gegeben durch Datum, Sternzeit und Längendifferenz gegen Greenwich, übergehen können. Eine weitere Spalte gibt die seit Beginn des annus fictus verflossene Zeit in Bruchteilen des tropischen Jahres.

Die Reduktionsgrößen der *zweiten* Form: f, $\log g$, G, $\log h$, H, $\log i$ und i, sowie f', g' und G' sind auf S. 238*—255* von Tag zu Tag für 0^h Welt-Zeit gegeben.

Auch hier findet sich eine Spalte, t überschrieben, welche die seit Beginn des annus fictus verflossene Zeit in Bruchteilen des tropischen Jahres gibt. Ferner ist die Sternzeit Greenwich für 0^h Welt-Zeit gegeben.

Die Seiten mit ungerader Seitenzahl enthalten außer den schon erwähnten f', g', G' noch folgende Größen:

a) ψ = Allgemeine Präzession seit Jahresanfang.
b) $\Delta\psi$ = Langperiodische Glieder der Nutation in Länge.
c) $\Delta\psi'$ = Kurzperiodische Glieder der Nutation in Länge.
d) ε = Mittlere Schiefe der Ekliptik.
e) $\Delta\varepsilon$ = Langperiodische Glieder der Nutation in Schiefe.
f) $\Delta\varepsilon'$ = Kurzperiodische Glieder der Nutation in Schiefe.
g) Die Koeffizienten j und k, welche in den Formeln auf S. 267* vorkommen.

Die wahre Schiefe erhält man durch Addition der Gesamtnutation $(\Delta\varepsilon + \Delta\varepsilon')$ zu der mittleren Schiefe.

Auf S. 265* findet sich eine Tafel der Hilfsgrößen zur Berechnung der Präzession von verschiedenen mittleren Äquinoktien bis 1939.0.

S. 266* enthält eine Tafel der Hilfsgrößen zur Übertragung der Polsternörter von verschiedenen mittleren Äquinoktien auf das mittlere Äquinoktium 1939.0.

Auf S. 267* sind die Formeln zusammengestellt, mit welchen bei Anschlußbeobachtungen die gemessenen Koordinatendifferenzen der scheinbaren Örter in solche der mittleren Örter für den Jahresanfang übergeführt werden. Die in diesen Formeln auftretenden Koeffizienten j und k sind auf den Seiten 239*—255* enthalten und haben die Bedeutung

$$j = 15\, g \text{ arc } 1'$$
$$k = 15\, h \text{ arc } 1',$$

wobei g und h die auf den Seiten 238*—254* gegebenen Reduktionsgrößen sind.

S. 268* enthält eine Zusammenstellung der von der Deklination abhängenden Faktoren der Formeln auf S. 267*.

S. 269* enthält eine Tafel der numerischen Werte der Funktionen Sinus und Cosinus für in Zeit ausgedrückte Winkel. Ihre Benutzung erleichtert die Berechnung der Formeln auf S. 267*.

Die Seite 270* enthält eine Tafel zur Übertragung von Rektaszensions- und Deklinationsdifferenzen vom mittleren Äquinoktium 1939.0 auf das Normaläquinoktium 1950.0. Man findet die auf das Normaläquinoktium 1950.0 bezogene Koordinatendifferenz, indem man an die auf das mittlere Äquinoktium 1939.0 bezogene Rektaszensionsdifferenz die differentielle Präzession Δp_α^s und an die Deklinationsdifferenz die differentielle Präzession $\Delta p_\delta''$ anbringt:

$$\Delta p_\alpha^s = a_1 \operatorname{tg}\delta \cdot \Delta\alpha^m + a_2 \tfrac{1}{15} \sec^2\delta \cdot \Delta\delta',$$
$$\Delta p_\delta'' = d_1 \cdot \Delta\alpha^m.$$

Die Koeffizienten a_1, a_2 und d_1 sind in der Tafel auf S. 270* enthalten und haben die Bedeutung:

$$a_1 = (n) \text{ arc } 1' \cos\alpha$$
$$a_2 = (n) \text{ arc } 1' \sin\alpha$$
$$d_1 = -15\ (n) \text{ arc } 1' \sin\alpha.$$

$\Delta\alpha^m$ und $\Delta\delta'$ sind die auf das mittlere Äquinoktium 1939.0 bezogenen Rektaszensions- und Deklinationsdifferenzen in Zeit- bez. Bogenminuten. Nach den angegebenen Formeln findet man die differentielle Präzession für Rektaszension in Zeitsekunden, diejenige für Deklination in Bogensekunden.

Die auf Seite 271* gegebenen Größen f, log g und G dienen zur Übertragung der Örter von dem *mittleren* Normaläquinoktium 1950.0 auf das jedesmalige *wahre* Äquinoktium. Die Berücksichtigung des Einflusses der Variatio saecularis bei dieser Übertragung ist durch die Tafeln auf S. 272* und 273* gegeben. Diese enthalten in der ersten Reihe

einer jeden Vertikalspalte die Werte von 0.605 × Var. saec. für die mit den Argumenten α und δ gegebenen Örter. Die an zweiter Stelle stehenden Zahlen einer jeden Vertikalspalte sind die einjährigen Änderungen von 0.605 × Var. saec. und sind, wenn erforderlich, bei der Entnahme des Einflusses der Variatio saecularis für den in Frage kommenden Bruchteil des Jahres zu berücksichtigen.

Eine Tafel zur Übertragung von Sternörtern vom mittleren Äquinoktium 1939.0 auf das Normaläquinoktium 1950.0 befindet sich auf den Seiten 274*—276*.

Die hier tabulierten Größen sind gerechnet nach den Formeln:

$$A = (n^s) \sin a$$
$$D = (n'') \cos a$$
$$B = (m^s) - 0.00001818\,(n^s)^2 \sin 2a$$
$$\Delta C = \operatorname{arc} tg\, C - C; \quad C = A\, tg\,(\delta_{1939.0} + D)$$
$$P = -15\, tg\, \tfrac{1}{2}\psi; \quad tg\,\psi = \sin (n) \sin a\, tg\,(\delta_{1939.0} + D)$$
$$a = \alpha_{1939.0} + 90^0 - (N)$$

Wegen der Größen (m), (n), (N) vgl. S. [5] der „Grundbegriffe der Sphärischen Astronomie" im Jahrbuch für 1916. Falls die auf S. 276* gegebene Tafel für ΔC und P nicht ausreicht, berechne man die Größen nach den vorstehend gegebenen Formeln oder benutze die weiterreichende Tafel in Veröff. d. Astronom. Rech.-Inst. Nr. 49.

Sonnen- und Mondfinsternisse (S. 278*—284*).

Die bei den Sonnenfinsternissen gegebenen Besselschen Elemente dienen in der folgenden Weise zur Vorausberechnung der Phasenzeiten und der Positionswinkel der Kontakte:

Mit einer Ausgangszeit T (siehe weiter unten) entnimmt man der Elemententabelle die Werte:

x, y, log sin d, log cos d, μ, l ($l^{(a)}$ für äußere, $l^{(i)}$ für innere Berührung), log tang f ($f^{(a)}$ für äußere, $f^{(i)}$ für innere Berührung), x' und y'.

Mit ihnen rechnet man das folgende Formelsystem durch:

$$(1)\left\{\begin{aligned} \xi &= c \cos\varphi \sin(\mu-\lambda) \\ \eta &= s \sin\varphi \cos d - c \cos\varphi \sin d \cos(\mu-\lambda) \\ \zeta &= s \sin\varphi \sin d + c \cos\varphi \cos d \cos(\mu-\lambda) \\ \xi' &= [7.6398-10]\; c \cos\varphi \cos(\mu-\lambda) \\ \eta' &= [7.6398-10]\; \xi \sin d, \end{aligned}\right.$$

worin φ die geographische Breite, λ die westliche Länge (von Greenwich) des Beobachtungsortes bezeichnen, s und c aus der Tafel auf S. 340* zu entnehmen sind.

Alsdann:

$$(2)\left\{\begin{aligned} &\left.\begin{aligned} m \sin M &= x - \xi \\ m \cos M &= y - \eta \end{aligned}\right\} m > 0 \\ &\left.\begin{aligned} n \sin N &= x' - \xi' \\ n \cos N &= y' - \eta' \end{aligned}\right\} n > 0 \end{aligned}\right.$$

Nun berechnet man aus:

(3) $L = l - \zeta \operatorname{tang} f$

$L^{(a)}$ mit $l^{(a)}$ und $f^{(a)}$, $L^{(i)}$ mit $l^{(i)}$ und $f^{(i)}$; dann aus:

(4) $\sin \psi = \frac{m \sin (M - N)}{L}$ [1])

mit $L^{(a)}$ und $L^{(i)}$ je zwei Werte $\psi^{(a_1)}$, $\psi^{(a_2)}$ und $\psi^{(i_1)}$, $\psi^{(i_2)}$, von denen der eine zum Eintritt der Erde in den Halb- oder Kernschatten-Kegel, der andere zu ihrem Austritt aus ihm gehört. Diesen vier Werten $\psi^{(a_1)}$, $\psi^{(a_2)}$ und $\psi^{(i_1)}$, $\psi^{(i_2)}$ entsprechen vier Werte $\tau^{(a_1)}$, $\tau^{(a_2)}$ und $\tau^{(i_1)}$, $\tau^{(i_2)}$ (in Zeitminuten) nach

$$(5)\quad \tau = -\frac{m \cos (M - N)}{n} + \frac{L \cos \psi}{n},$$

um welche die Ausgangszeit T zu verbessern ist, um die Zeit der gesuchten Phase zu erhalten. Ist T die gesuchte Phasenzeit, so wird $\tau = 0$ werden. Man muß daher das Formelsystem (1) bis (5) mit steigenden Näherungen so lange durchrechnen, bis dieser Fall eintritt, d. h. bis das Formelsystem sich schließt. Zu diesem Zweck beginnt man mit einem Näherungswert T_1, für den man, wenn kein besserer bekannt sein sollte, eine beliebige Zeit nahe der Mitte der Finsternis nehmen mag, und rechnet die erste genäherte Korrektion τ_1; dann wiederholt man die Rechnung mit $T_2 = T_1 + \tau_1$, dann mit $T_3 = T_2 + \tau_2 = T_1 + \tau_1 + \tau_2$ usf. bis sich $\tau_n = 0$ ergibt. T_n ist dann die gesuchte Welt-Zeit des Kontaktes, die durch Hinzufügung der Längendifferenz in mittlere Ortszeit zu verwandeln ist. Die Rechnung ist für jede Berührung gesondert durchzuführen.

Die Positionswinkel der einzelnen Phasen, in üblicher Weise vom Punkt größter Deklination nach Osten gezählt, folgen aus den Werten der letzten Näherung (Größen mit dem Index n) nach

$$P = N + \psi.$$

Will man den Winkelabstand Q vom Punkte der größten Höhe haben, so hat man von P noch den parallaktischen Winkel γ abzuziehen, der aus

$$\left.\begin{aligned} p \sin \gamma &= \xi \\ p \cos \gamma &= \eta \end{aligned}\right\} p > 0$$

folgt, also $\quad Q = P - \gamma.$

Um die Zeit der größten Phase, $T_{\max}$, zu erhalten, hat man die beiden Formelsysteme (1) und (2) mit einem Näherungswerte T_1 durchzurechnen, daraus $T_2 = T_1 - \frac{m \cos (M - N)}{n}$ zu entnehmen und die Rechnung solange fortzusetzen, bis die Korrektion der Ausgangszeit 0 wird. Als Näherungswert T_1 wählt man zweckmäßig das Mittel der beiden Werte von T_2 für die Berührungszeiten.

---

[1]) Wird der Winkel ψ bei der ersten Näherungsrechnung imaginär, so rechne man τ unter der Annahme $\psi = 90°$ aus $\tau = -\frac{m \cos (M - N)}{n}$; bleibt ψ auch in der weiteren Rechnung imaginär, so deutet dies an, daß an dem betreffenden Orte keine Sonnenfinsternis stattfindet.

Die Größe der Verfinsterung i, in Teilen des Sonnendurchmessers ausgedrückt, ergibt sich dann aus:

$$i = \frac{L^{(a)} - m}{2\,L^{(a)} - 0.5450}$$

worin $L^{(a)}$ und m die zur Zeit $T_{\max}$ gehörigen Werte bedeuten.

Sternbedeckungen (S. 285*—293*).

Auf den Seiten 285*—293* sind Angaben über die Stern- und Planetenbedeckungen enthalten, die in Berlin-Babelsberg, Breslau, Frankfurt a. M., Königsberg und München sichtbar sind. Außer der genäherten Welt-Zeit des Ein- und Austrittes ist unter P der Positionswinkel des Sterns für die Zeiten der Berührung mit dem Mondrande angeführt.

Die Größen a und b ermöglichen die Vorausberechnung der genäherten Ein- oder Austrittszeiten für andere Orte innerhalb Deutschlands, die nicht allzuweit von den angeführten fünf Hauptpunkten entfernt sind. Bezeichnen λ und φ die geographischen Koordinaten des Beobachtungsortes, λ_0 und φ_0 diejenigen des ihm am nächsten gelegenen Hauptpunktes, so ist die gesuchte Berührungszeit gleich der für den Hauptpunkt geltenden $+ a\,(\lambda - \lambda_0) + b\,(\varphi - \varphi_0)$. Hierbei sind die Differenzen $\lambda - \lambda_0$ und $\varphi - \varphi_0$ in Einheiten des Grades unter Mitnahme der Zehntelgrade auszudrücken, damit sich die Korrektion in Zeitminuten ergibt.

Die Angaben über Sternbedeckungen, sind von dem Nautical Almanac Office, London, zur Verfügung gestellt worden.

Mondbewegung und Lage des Mondäquators gegen den Erdäquator (S. 294*).

Auf S. 294* finden sich:

- ☊, Aufsteigender Knoten der Mondbahn auf der Ekliptik,
- $L_☾$, Mittlere Länge des Mondes,
- $M_☾$, Mittlere Anomalie des Mondes,
- i, Neigung des Mondäquators gegen den Erdäquator,
- ☊′, Aufsteigender Knoten des Mondäquators auf dem Erdäquator,
- Δ, Stück des Mondäquators zwischen Ekliptik und Erdäquator,

☋, der aufsteigende Knoten des Mondäquators auf der Ekliptik, ist gleich dem absteigenden Knoten der Mondbahn, also

$$☋ = ☊ \pm 180°.$$

Vom Jahrgang 1926 ab sind die Brownschen Mondtafeln verwendet. Die Größen i, Δ und ☊′ berechnen sich aus:

$$\sin\frac{1}{2}(\Delta + ☊')\cos\frac{1}{2}i = \cos\frac{1}{2}(\varepsilon - J)\sin\frac{1}{2}☋$$

$$\cos\frac{1}{2}(\Delta + ☊')\cos\frac{1}{2}i = \cos\frac{1}{2}(\varepsilon + J)\cos\frac{1}{2}☋$$

$$\sin \frac{1}{2} (\Delta - \Omega') \sin \frac{1}{2} i = \sin \frac{1}{2} (\varepsilon - J) \sin \frac{1}{2} \mho$$

$$\cos \frac{1}{2} (\Delta - \Omega') \sin \frac{1}{2} i = \sin \frac{1}{2} (\varepsilon + J) \cos \frac{1}{2} \mho;$$

dabei ist J, die Neigung des Mondäquators gegen die Ekliptik, nach F. Hayn (Astr. Nachr. Bd. **199**, S. 263) zu $J = 1° 32' 20''$ angenommen worden. Die Zahlen geben die Lage des mittleren Mondäquators (ohne physische Libration).

Die auf S. 294* gemachten Angaben über die Elemente der Mondbahn und des Mondäquators werden, teilweise in Verbindung mit den Größen $L_{\odot}$ und $M_{\odot}$ auf S. 29, zu verschiedenen Zwecken verwendet:

1) Als Argumente für die Berechnung der Reduktionsgrößen A, B, C, D, E, A', B'.

2) Bei Bestimmung der selenographischen Koordinaten von Punkten der Mondoberfläche (siehe darüber den folgenden Abschnitt).

3) Bei Berechnung der *optischen* und *physischen* Libration des Mondes.

a) Für die Berechnung der *optischen* Libration des Mondes sind alle nötigen Angaben in den Erläuterungen zu den Hilfstafeln unter Nr. 8 (S. 368*) gemacht.

b) Die Beträge der *physischen* Mondlibration in selenographischer Länge, der Neigung des Mondäquators und seinem aufsteigenden Knoten auf der Ekliptik τ, ρ, σ haben die Werte:

$$\tau = -\ 13'' \sin M_{☾} + 65'' \sin M_{\odot} + 26'' \sin 2 (L_{☾} - M_{☾} - \Omega)$$

$$\rho = -106'' \cos M_{☾} + 34'' \cos (2 L_{☾} - M_{☾} - 2 \Omega) - 11'' \cos 2 (L_{☾} - \Omega)$$

$$\sigma \sin J = -108'' \sin M_{☾} + 34'' \sin (2 L_{☾} - M_{☾} - 2 \Omega) - 11'' \sin 2 (L_{☾} - \Omega)$$

Diese Zahlenangaben beruhen auf der Annahme $f = 0.73$, worüber F. Hayn (Astr. Nachr. Bd. **199**, S. 264) einzusehen ist.

Ephemeride für den Mondkrater Mösting A.

(S. 295*—299*).

Die Ephemeride des Mondkraters Mösting A. dient zwei verschiedenen Zwecken: erstens zur genauen Bestimmung von Mondörtern am Himmel durch Beobachtung des Kraters, zweitens zur Bestimmung der selenographischen Koordinaten weiterer Punkte der Mondoberfläche durch deren mikrometrischen Anschluß an Mösting A.

Sie gilt für 0^h Welt-Zeit und enthält für die Tage, an welchen Mösting A. innerhalb der Beleuchtungsgrenze liegt, die Unterschiede $\alpha_{☾} - \alpha_k$ in Rektaszension und $\delta_{☾} - \delta_k$ in Deklination zwischen der Mondmitte und dem Krater, vom Erdmittelpunkt aus gesehen, sowie den Logarithmus des Sinus der Äquatorial-Horizontalparallaxe p_k des Kraters, welche von der des Mondes $p_{☾}$ zu unterscheiden ist, mit den zugehörigen Differenzen.

Zur Anwendung der Ephemeride auf Beobachtungen des Kraters interpoliere man $\alpha_{☾} - \alpha_k$, $\delta_{☾} - \delta_k$ und log sin p_k mit der Beobachtungszeit. Fügt man alsdann $\alpha_{☾} - \alpha_k$ und $\delta_{☾} - \delta_k$ zum geozentrischen Ort des Kraters hinzu (die Parallaxe wird mit p_k und δ_k, der Deklination des Kraters, berechnet), so hat man die geozentrische Rektaszension und Deklination des Mondes für die Beobachtungszeit.

Hat man einen Punkt der Mondoberfläche mikrometrisch an Mösting A. angeschlossen, so bestimme man zunächst die topozentrischen, d. h. mit Parallaxe behafteten Koordinatendifferenzen $\alpha'_{☾} - \alpha'_k$ und $\delta'_{☾} - \delta'_k$ zwischen Mondmittelpunkt und Mösting A. aus folgenden Identitäten:

$$\alpha'_{☾} - \alpha'_k = \alpha_{☾} - \alpha_k + (\alpha'_{☾} - \alpha_{☾}) - (\alpha'_k - \alpha_k)$$
$$\delta'_{☾} - \delta'_k = \delta_{☾} - \delta_k + (\delta'_{☾} - \delta_{☾}) - (\delta'_k - \delta_k).$$

Verbindet man die so erhaltenen topozentrischen Abstände zwischen der Mondmitte und Mösting A. mit den mikrometrischen Messungen zwischen Mösting A. und einem zweiten Krater, so erhält man die topozentrische Lage des letzteren gegen die Mondmitte und kann hieraus mit Hilfe von $\alpha'_{☾}$ und $\delta'_{☾}$ und den Angaben auf S. 294* die selenographische Länge und Breite des zweiten Kraters berechnen. Hierzu dienen die im folgenden angeführten Formeln.

Bezeichnet man mit α' und δ' die topozentrische AR. und Dekl. des an Mösting A. angeschlossenen Kraters, so hat man:

$$s \sin \pi_m = (\alpha' - \alpha'_{☾}) \cos \tfrac{1}{2} (\delta' + \delta'_{☾})$$
$$s \cos \pi_m = \delta' - \delta'_{☾}$$
$$\pi = \pi_m - \tfrac{1}{2} (\alpha' - \alpha'_{☾}) \sin \tfrac{1}{2} (\delta' + \delta'_{☾})$$
$$\sin (K + s) = \sin s \operatorname{cosec} h'.$$

h' ist der Abstand des Kraters vom Mondschwerpunkt, gesehen vom Beobachtungsort aus, der aus h, dem vom Erdmittelpunkt aus gesehenen Abstand, durch Anbringen der Parallaxe gewonnen wird. Ist die Entfernung des Kraters vom Mondschwerpunkt gänzlich unbekannt, so möge für h der aus Sternbedeckungen folgende Wert des Mondhalbmessers 15′ 32″.59 (nach J. Peters, Astr. Nachr. Bd. **138,** S. 147) eingesetzt werden.

$$\sin d = -\sin \delta'_{☾} \cos K + \cos \delta'_{☾} \sin K \cos \pi$$
$$\cos d \cos (a - \alpha'_{☾}) = -\cos \delta'_{☾} \cos K - \sin \delta'_{☾} \sin K \cos \pi$$
$$\cos d \sin (a - \alpha'_{☾}) = \sin K \sin \pi$$
$$\sin \beta = \sin d \cos i - \cos d \sin i \sin (a - ☊')$$
$$\cos \beta \sin \lambda' = \sin d \sin i + \cos d \cos i \sin (a - ☊')$$
$$\cos \beta \cos \lambda' = \cos d \cos (a - ☊')$$
$$\lambda = \lambda' - 180° - L_{☾} - (\Delta - ☋).$$

Die so erhaltenen Werte von λ und β beziehen sich auf den mittleren (vom Einfluß der physischen Libration freien) Mondäquator; die Transformation auf den wahren erfolgt durch die Korrektionen:

$$d\lambda = +13'' \sin M_{☾} - 65'' \sin M_{\odot} - 26'' \sin 2\,(L_{☾} - M_{☾} - ☊)$$
$$+ \operatorname{tg}\beta\,[-106'' \cos (L_{☾} - M_{☾} - ☊ + \lambda)$$
$$+ 34'' \cos (L_{☾} - M_{☾} - ☊ - \lambda) - 11'' \cos (L_{☾} - ☊ - \lambda)]$$
$$d\beta = +108'' \sin (L_{☾} - M_{☾} - ☊ + \lambda) + 34'' \sin (L_{☾} - M_{☾} - ☊ - \lambda)$$
$$- 11'' \sin (L_{☾} - ☊ - \lambda)$$

Bringt man diese Korrektionen $d\lambda$ und $d\beta$ an λ und β an, so erhält man die selenographischen Koordinaten des Kraters:

$$\lambda_0 = \lambda + d\lambda, \qquad \beta_0 = \beta + d\beta$$

Der Berechnung der Ephemeride des Kraters Mösting A. liegen folgende von F. Hayn ermittelte Konstanten (Astr. Nachr. Bd. **199**, S. 263) zugrunde:

$$\lambda_0 = -5°\ 10'\ 7'', \quad \beta_0 = -3°\ 11'\ 2''$$
$$h = 15'\ 33''.4$$

Für die Reduktion auf den mittleren Mondäquator wurden die Werte angenommen:

$$d\lambda = -13'' \sin M_{☾} + 65'' \sin M_{\odot} + 26'' \sin 2\,(L_{☾} - M_{☾} - ☊)$$
$$d\beta = -107'' \sin (L_{☾} - M_{☾} - ☊ + \lambda_0) - 34'' \sin (L_{☾} - M_{☾} - ☊ - \lambda_0)$$
$$+ 11'' \sin (L_{☾} - ☊ - \lambda_0),$$

so daß die auf den mittleren Mondäquator bezogenen selenographischen Koordinaten des Kraters Mösting A. sind:

$$\lambda = \lambda_0 + d\lambda, \qquad \beta = \beta_0 + d\beta.$$

Die Formeln zur Berechnung der Ephemeride siehe in den Erläuterungen zum Jahrbuch 1916.

Jupitertrabanten (S. 300*—301*).

Die Seiten 300* und 301* enthalten die Zeitangaben (in Welt-Zeit) für die Verfinsterungen der vier hellen Jupitertrabanten in dem Schattenkegel des Jupiter; Ein- und Austritte sind durch beigefügtes E. und A. unterschieden.

Saturnsring (S. 302*—303*, 306*).

Die Angaben für die scheinbare Größe des Saturn und für die Lage und Größe des Saturnsringes haben die folgende Bedeutung:

α Große Achse des Saturn.

β Kleine Achse des Saturn.

p_α Phase; positiv, wenn der Ostrand, negativ, wenn der Westrand verdunkelt ist.

a Große Achse der Ringellipse.

b Kleine Achse der Ringellipse; positiv, wenn die nördliche, negativ, wenn die südliche Fläche des Ringes sichtbar ist.

U' Heliozentrische Länge des Saturn, gezählt auf der Ringebene vom aufsteigenden Knoten des Ringes in der Ekliptik an.

B' Erhöhungswinkel der Sonne über der Ringebene vom Saturn aus gesehen; nördlich positiv, südlich negativ.

P' Winkel der kleinen Achse der Ringellipse mit dem durch den Saturnsmittelpunkt gehenden Längenkreise; östlich positiv, westlich negativ.

U Geozentrische Länge des Saturn, gezählt auf der Ringebene vom aufsteigenden Knoten des Ringes im Erdäquator an.

B Erhöhungswinkel der Erde über der Ringebene vom Saturn aus gesehen; nördlich positiv, südlich negativ.

P Winkel der kleinen Achse der Ringellipse mit dem durch den Saturnsmittelpunkt gehenden Stundenkreise; östlich positiv, westlich negativ.

N Aufsteigender Knoten der Ringebene im Erdäquator, gezählt vom Äquinoktium an.

J Neigung der Ringebene gegen den Erdäquator.

ω Entfernung der Ekliptik vom Erdäquator, gemessen auf der Ringebene.

Es liegen folgende Bestimmungen nach H. Struve zugrunde:

Durchmesser des Saturn in der Entfernung 9.53887

Äquatorial $17''.47$ Polar $15''.65$

Durchmesser des Ringes in der Entfernung 9.53887

$$2\,R = 39''.35$$

Lage des Saturnsringes gegen die Ekliptik und das Äquinoktium von 1889.25 nach G. Struve

$$\Omega_1 = 167°\ 58'.08 \quad \text{und} \quad i_1 = 28°\ 4'.55$$

Saturnstrabanten (S. 304*—314*).

Die Berechnungen der Saturnstrabanten Mimas bis Rhea sind mit den von G. Struve in den Veröffentlichungen der Universitätssternwarte Berlin-Babelsberg, Bd. VI, Heft 4 abgeleiteten Elementen durchgeführt worden. Für Titan und Japetus sind die von ihm in Bd. VI, Heft 5 angegebenen Elemente benutzt worden, und für Hyperion haben die von J. Woltjer in den Annalen der Sternwarte Leiden, Bd. 16, Teil 3 bestimmten Elemente als Grundlage gedient.

Die den Ephemeriden zugrunde liegenden Elemente sind:

MIMAS (Berlin-Bbg. VI, Heft 4)
Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 127^\circ\ 5'.5$
$n = 381^\circ.994442$
$\delta l = -44^\circ.390 \sin[5^\circ.0864(\tau - 1866.27)]$
$\quad - 0^\circ.764 \sin 3[5^\circ.0864(\tau - 1866.27)]$
$l_1 = E_0 + nt_d + \delta l$
$\Theta = 56^\circ.1 - 365^\circ.23\, t$
$\gamma = 1^\circ\ 31'.0$
$\Pi_1 = 105^\circ.0 + 365^\circ.60\, t$
$e = 0.0201$
$a = 26''.826$

ENCELADUS (Berlin-Bbg. VI, Heft 4)
Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 199^\circ\ 25'.8$
$n = 262^\circ.7319405$
$\delta l = +14'.39 \sin(63^\circ.75 + 32^\circ.51\, t)$
$\quad + 14'.06 \sin(117^\circ.28 + 93^\circ.14\, t)$
$l_1 = E_0 + nt_d + \delta l$
$\Theta = 51^\circ.81 - 152^\circ.7\, t$
$\gamma = 1'.4$
$\Pi_1 = 308^\circ.38 + 123^\circ.43\, t$
$e = 0.00444$
$a = 34''.416$

TETHYS (Berlin-Bbg. VI, Heft 4)
Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 284^\circ\ 28'.3$
$n = 190^\circ.697950$
$\delta l = +2^\circ.065 \sin[5^\circ.0864(\tau - 1866.27)]$
$\quad + 0^\circ.036 \sin 3[5^\circ.0864(\tau - 1866.27)]$
$l_1 = E_0 + nt_d + \delta l$
$\Theta = 110^\circ.39 - 72^\circ.25\, t$
$\gamma = 1^\circ\ 5'.56$
$e = 0.0000$
$a = 42''.605$

DIONE (Berlin-Bbg. VI, Heft 4)
Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 253^\circ\ 52'.0$
$n = 131^\circ.5349729$
$\delta l = -0'.93 \sin(63^\circ.75 + 32^\circ.51\, t)$
$\quad - 0'.91 \sin(117^\circ.28 + 93^\circ.14\, t)$
$l_1 = E_0 + nt_d + \delta l$

$$\Theta = 201^\circ\!.0 - 31^\circ\!.0\, t$$
$$\gamma = 1'\!.4$$
$$\Pi_1 = 173^\circ\!.4 + 30^\circ\!.75\, t$$
$$e = 0.00221$$
$$a = 54''\!.567$$

RHEA (Berlin-Bbg. VI, Heft 4)
Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$$E_0 = 358^\circ\ 23'\!.7$$
$$n = 79^\circ\!.6900881$$
$$l = E_0 + nt_d$$
$$(\Omega - \Omega_1) \sin i_1 = 20'\!.49 \sin (344^\circ\!.09 - 10^\circ\!.20 t) - 0'\!.38 + 1'\!.00 \sin (48^\circ\!.5 - 0^\circ\!.50 t)$$
$$i - i_1 = 20'\!.49 \cos (344^\circ\!.09 - 10^\circ\!.20 t) - 2'\!.79 + 1'\!.00 \cos (48^\circ\!.5 - 0^\circ\!.50 t)$$
$$\Pi = 275^\circ\!.85 + 0^\circ\!.53\, t + 17^\circ\!.64 \sin [9^\circ\!.5\, (\tau - 1879.59)]$$
$$e = 0.00098 + 0.00030 \cos [9^\circ\!.5\, (\tau - 1879.59)]$$
$$a = 76''\!.203$$

Ω_1 und i_1 bezeichnen die Lage des Saturnsringes.

TITAN (Berlin-Bbg. VI, Heft 5)
Epoche: 1890 Jan. 0.0 Mittl. Zt. Grw.

$$E_0 = 260^\circ\ 24'\!.26$$
$$n = 22^\circ\!.577015$$
$$l = E_0 + nt_d + (E - E_0)$$
$$E - E_0 = +4'\!.39 \sin (40^\circ\!.69 - 0^\circ\!.506\, t)$$
$$\Omega = 167^\circ\ 51'\!.90 + 39'\!.00 \sin (40^\circ\!.69 - 0^\circ\!.506\, t)$$
$$i = 27^\circ\ 26'\!.33 + 18'\!.35 \cos (40^\circ\!.69 - 0^\circ\!.506\, t)$$
$$\Pi = 276^\circ\ 7'\!.7 + 31'\!.41\, t + 22'\!.0\, (\sin 2g - \sin 2 g_0)$$
$$e = 0.02910 + 0.000186\, (\cos 2g_0 - \cos 2g)$$
$$g = \Pi - \Omega - 4^\circ\!.5$$
$$g_0 = g \text{ für } t = 0$$
$$a = 176''\!.578$$

HYPERION (J. Woltjer, Ann. Sternwarte Leiden Bd. XVI, 3, S. 64)
Anfangsepoche für t_d: 1900 Januar 0.0 Mittl. Zt. Grw.
„ „ t : 1900.0
Argumente: $\sigma = 93^\circ\!.13 + 0^\circ\!.562039\, t_d$ $\tilde\omega = 148^\circ\!.72 - 19^\circ\!.184\, t$

$$n = 16^\circ\!.9199896$$
$$l = 176^\circ\!.293 + 16^\circ\!.9199896\, t_d + 9^\circ\!.092 \sin\sigma + 0^\circ\!.211 \sin (\tilde\omega + \sigma) + 0^\circ\!.192 \sin (\tilde\omega - \sigma) - 0^\circ\!.077 \sin\tilde\omega$$
$$\Pi = 70^\circ\!.05 - 18^\circ\!.6562\, t - 13^\circ\!.67 \sin\tilde\omega + 0^\circ\!.93 \sin 2\tilde\omega - 0^\circ\!.47 \sin\sigma$$
$$e = 0.10419 + 0.02414 \cos\tilde\omega - 0.00401 \cos\sigma - 0.00183 \cos 2\tilde\omega$$
$$a = 214''\!.32 - 0''\!.74 \cos\sigma$$

$$\gamma \sin h = -0{,}^\circ061 + 0{,}^\circ574 \sin[-2{,}^\circ392\, t + 95{,}^\circ9\ ] + 0{,}^\circ315 \sin[-0{,}^\circ500\, t + 42{,}^\circ78]$$

$$\gamma \cos h = -0{,}^\circ747 + 0{,}^\circ574 \cos[-2{,}^\circ392\, t + 95{,}^\circ9\ ] + 0{,}^\circ315 \cos[-0{,}^\circ500\, t + 42{,}^\circ78]$$

γ = Neigung der Bahnebene gegen den Saturnsäquator,
h = Länge des aufsteigenden Knotens auf dem Saturnsäquator, gezählt vom aufsteigenden Knoten des Saturnsäquators auf der Ekliptik.

JAPETUS (Berlin-Bbg. VI, Heft 5)

Epoche: 1885 Sept. 1.0 Mittl. Zt. Grw.

$E_0 = 75° \ 25{,}'61$ $i = 18° \ 26{,}'39 - 0{,}'54\, t$

$n = 4{,}^\circ537995$ $\Pi = 354° \ 27{,}'4 + 8{,}'1\, t$

$l = E_0 + nt_d$ $e = 0.02828$

$\Omega = 142° \ 11{,}'3 - 1{,}'375\, t$ $a = 514{,}''59$

Hierin bedeuten:

l_1, l = Mittlere Länge in der Bahn
n = Tropische mittlere tägliche Bewegung
δl = Libration
τ = Epoche
t_d = Anzahl der Tage seit der Anfangsepoche
t = Anzahl der Jahre seit der Anfangsepoche
Θ = Knoten auf dem Saturnsäquator
Ω = Knoten auf der Ekliptik
γ = Neigung der Trabantenbahn gegen den Saturnsäquator
i = Neigung der Trabantenbahn gegen die Ekliptik
Π_1, Π = Perisaturnium
e = Exzentrizität
a = Halbachse der Trabantenbahn in der mittleren Entfernung $(\Delta) = 9.53887$

l_1, Π_1 und Θ werden gezählt vom Äquinoktium aus in der Ekliptik, weiter im Saturnsäquator und dann erst in der Trabantenbahn, l und Π vom Äquinoktium aus in der Ekliptik und weiter in der Trabantenbahn.

Auf den Seiten 304*—306* sind die Hilfsmittel gegeben, um in bequemer Weise die Positionen der Trabanten ableiten zu können. Sieht man hierbei von den Neigungen γ ab, so erhält man die rechtwinkligen Koordinaten x und y des Trabanten in bezug auf ein Achsenkreuz, dessen Anfangspunkt im Mittelpunkt des Saturn gelegen ist, dessen X-Achse parallel der großen Achse des Ringes verläuft, positiv, wenn östlich, negativ, wenn westlich vom Saturn, und dessen positive Y-Achse mit dem durch den Saturnsmittelpunkt gehenden Stundenkreise den Winkel P einschließt, aus den Gleichungen:

$$x = \frac{a(\Delta)}{\Delta} \frac{1}{1+\zeta} \frac{r}{a} \sin(u-U)$$

$$y = \frac{a(\Delta)}{\Delta} \frac{1}{1+\zeta} \frac{r}{a} \sin B \cos(u-U).$$

$(\Delta) = 9.53887$ bezeichnet den mittleren Wert der Entfernung Sonne—Saturn, Δ ist die Entfernung Erde—Saturn, $u = L + (v - M)$ ist die wahre Länge des Trabanten vom Erdäquator an gezählt.

$\log \frac{1}{1+\zeta}$ ist auf Seite 306* enthalten.

Ist genaueste Ortsbestimmung erforderlich, so darf man bei Mimas, Tethys und Rhea die Neigungen gegen den Saturnsäquator, da sie schon merklichere Werte annehmen, nicht mehr vernachlässigen; x und y ergeben sich dann aus:

$$x = \frac{a(\Delta)}{\Delta} \frac{1}{1+\zeta} \frac{r}{a} \sin(u-U)$$

$$y = \frac{a(\Delta)}{\Delta} \frac{1}{1+\zeta} \frac{r}{a} \sin B [\cos(u-U) + \sin\gamma \operatorname{cotg} B \sin(u-\vartheta)].$$

Die Werte von ϑ, der Länge des aufsteigenden Knotens der Trabantenbahn auf dem Saturnsäquator, gezählt vom Schnittpunkte des Saturnsäquators mit dem Erdäquator, finden sich für die fünf inneren Trabanten auf Seite 306*; auch ist hier für Rhea γ, weil stärker mit der Zeit veränderlich, in Intervallen von 16 Tagen gegeben.

Will man aus x und y die Rektaszensions- und Deklinationsdifferenzen bestimmen, so dienen dazu die Gleichungen:

$$s \sin(p - P) = x$$
$$s \cos(p - P) = y$$

$$\Delta\alpha = \alpha_{tr} - \alpha_{pl} = \frac{1}{15} s \sin p \sec \delta_{tr}$$
$$\Delta\delta = \delta_{tr} - \delta_{pl} = s \cos p.$$

Auf den Seiten 307*—309* finden sich, außer den Hilfsgrößen U, B und P, für die Trabanten Titan, Hyperion und Japetus die genäherten Rektaszensions- und Deklinationsunterschiede gegen den Saturn in dem Sinne Trabant minus Planet für die beiden letzteren Trabanten.

Die aus den Angaben des Berliner Jahrbuchs ermittelten Trabantenörter sind auf das mittlere Äquinoktium der Epoche bezogen.

Zum Schluß enthalten die Seiten 310*—314* die Zeitangaben (in Welt-Zeit) für die östlichen Elongationen von Mimas, Enceladus, Tethys, Dione, Rhea, ferner für die östlichen und westlichen Elongationen ($u - U = \pm 90°$) und für die oberen und unteren Konjunktionen ($u - U = 0°, 180°$) von Titan, Hyperion und Japetus mit Saturn; diese Zeitangaben für die Elongationen und Konjunktionen sind bereits für Lichtzeit korrigiert, also ohne weiteres mit den Beobachtungen vergleichbar.

Konstellationen (S. 315*—316*).

In der Übersicht der Konstellationen des Jahres 1939 sind die hauptsächlichsten Planeten-Konstellationen gegeneinander und gegen Sonne und Mond, sowie die Angaben der Epochen, zu welchen sich

die Planeten in gewissen Hauptpunkten ihrer Bahn und ihres synodischen Laufes befinden, zusammengestellt. Die Bedeutung der hier verwendeten Zeichen siehe Seite VIII des Vorworts. — Die Konjunktionen der Planeten mit dem Mond und ihre gegenseitigen sind als Konjunktionen in AR. zu verstehen. Die Angaben über Konjunktion und Opposition der Planeten mit der Sonne entsprechen den Zeiten, zu denen der Längenunterschied zwischen Planet und Sonne 0° oder 180° ist.

Hilfstafeln (S. 317*—340*).

Es folgt eine Reihe von häufig gebrauchten Hilfstafeln.

1) Tafeln für Präzessionswerte (S. 317*—319*).

a) Präzession in Rektaszension und Deklination (Seite 317*)

$$p_\alpha = m + \tfrac{1}{15} n \sin\alpha \operatorname{tg}\delta$$
$$p_\delta = n \cos\alpha$$

b) Präzessionswerte m, n, ψ, π, Π und ε, die mittlere Schiefe der Ekliptik (Seite 317*).

Mit diesen Werten berechnet sich die Präzession für die Elemente einer Bahnebene im System der Ekliptik nach:

$$p_\Omega = \psi - \pi \operatorname{cotg} i \sin(\Pi - \Omega)$$
$$p_i = -\pi \cos(\Pi - \Omega)$$
$$p_\omega = \pi \operatorname{cosec} i \sin(\Pi - \Omega)$$

und im System des Äquators nach:

$$p_{\Omega'} = m - n \operatorname{cotg} i' \cos\Omega'$$
$$p_{i'} = -n \sin\Omega'$$
$$p_{\omega'} = n \cos\Omega' \operatorname{cosec} i'$$

c) Präzession in Länge und Breite (Seite 318*—319*).

$$p_\lambda = \psi + \pi \operatorname{tg}\beta \cos(\Pi - \lambda)$$
$$p_\beta = \pi \sin(\Pi - \lambda)$$

Den Tafeln a) und c) liegen die Präzessionswerte für 1950.0 zugrunde. Über die Bedeutung der Bezeichnungen und die Zahlenwerte vergleiche die Erläuterungen zum Jahrbuch für 1916.

2) Hilfstafeln zur Verwandlung von Mittlerer Zeit in Sternzeit (S. 320*, 322*) und von Sternzeit in Mittlere Zeit (S. 321*, 323*).

3) Eine Tafel zur Verwandlung von Stunden, Minuten und Sekunden in Dezimalteile des Tages und umgekehrt (S. 324*—325*).

4) Eine Tafel für die Ermittelung eines Datums in der Julianischen Periode (Seite 326*—330*). Die Tafel besteht aus zwei Teilen. Der erste Teil (S. 326*—327*) gibt in vierjährigen Schaltperioden für die Jahre 0 bis 2000 die Anzahl der am 0. Januar, 12^h Welt-Zeit, seit Anfang der Julianischen Periode verflossenen Tage. Als Ergänzung gibt die Hilfstafel am Fuß der Seite die Anzahl der am 0. jedes Monats, 12^h Welt-Zeit, seit Beginn der Schaltperiode verflossenen Tage. Man gehe bis zum 4. Oktober des Jahres 1582 mit dem Datum des Julia-

nischen, für spätere Jahre mit dem Datum des Gregorianischen Kalenders in die Tafel ein. Der zweite Teil (S. 328*—330*) gibt für die Jahre 1860—1979 unmittelbar die Anzahl der im Gregorianischen Kalender am 0. eines jeden Monats, 12^h Welt-Zeit, seit Beginn der Julianischen Periode verflossenen Tage.

5) Eine Tafel zur Verwandlung von Minuten und Sekunden in Dezimalteile des Grades und umgekehrt (S. 331*).

6) Tafel des halben Tagbogens (S. 332*—333*), berechnet mit der Horizontalrefraktion 34'.9 für geographische Breiten von + 30° bis + 60° und Deklinationen von — 30° bis + 30°.

7) Reduktionstafeln für die Auf- und Untergangszeiten der Sonne und des Mondes (S. 334*—337*). Sie geben die Reduktion der für + 50° Breite gültigen Zeiten, wie sie in den Ephemeriden enthalten sind, auf geographische Breiten zwischen + 30° und + 60° und sind für das Erscheinen oder Verschwinden des oberen Gestirnsrandes gerechnet.

8) Die Tafel zur Berechnung der optischen Mondlibration (S. 338*—339*) gibt mit dem Argument $\lambda - \Omega$ die Werte $\Delta\lambda$, a und B entsprechend den Gleichungen:

$$\Delta\lambda = \frac{1}{\operatorname{arc} 1'} \operatorname{tang}^2 \frac{1}{2} J \sin 2 (\lambda - \Omega)$$

$$a = - \cos (\lambda - \Omega) \sin J$$

$$\operatorname{tang} B = - \sin (\lambda - \Omega) \operatorname{tang} J$$

J = Neigung des Mondäquators gegen die Ekliptik.

Ω = Länge des aufsteigenden Knotens der Mondbahn auf der Ekliptik (s. S. 294*).

λ, β = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort.

Bezeichnen noch $L_{☾}$ die mittlere Länge des Mondes, l' und b' die optische Libration der Mondmitte in selenographischer Länge und Breite, so ist:

$$l' = \lambda - L_{☾} + \Delta\lambda - a (B - \beta)$$

$$b' = B - \beta$$

Der Winkel C, welchen der Mondmeridian des Mittelpunktes der scheinbaren Mondscheibe mit dem Stundenkreise bildet, ergibt sich aus der Gleichung:

$$\sin C = - \sin i \frac{\cos (L_{☾} + l' + \Delta - ☋)}{\cos \delta_{☾}} = - \sin i \frac{\cos (\alpha_{☾} - \Omega')}{\cos b'},$$

worin $\alpha_{☾}$, $\delta_{☾}$ Rektaszension und Deklination des Mondmittelpunktes gesehen vom Beobachtungsort aus, bezeichnen; die anderen vorkommenden Größen i, Δ, ☋ und Ω' haben schon auf S. 358* ihre Erklärung gefunden.

9) Eine Tafel der Hilfsgrößen s und c (S. 340*) zur Berechnung der geozentrischen Breite φ' und der geozentrischen Entfernung ρ eines

Erdortes, ausgedrückt in Einheiten der großen Halbachse des Erdellipsoids, aus der geographischen Breite φ nach den Formeln:

$$\varrho \sin \varphi' = s \sin \varphi$$
$$\varrho \cos \varphi' = c \cos \varphi$$

Darin haben s und c die Bedeutung:

$$s = \frac{1 - e^2}{\sqrt{1 - e^2 \sin^2 \varphi}}, \quad c = \frac{1}{\sqrt{1 - e^2 \sin^2 \varphi}}, \quad e = \sqrt{2\,\mathfrak{a} - \mathfrak{a}^2}.$$

Gemäß den Beschlüssen der Pariser Ephemeridenkonferenz von 1911 ist dabei die Abplattung $\mathfrak{a} = \frac{1}{297}$ angenommen.

Koordinaten der Sternwarten (S. 341*—347*).

Die Seiten 341*—347* enthalten die geographischen und geozentrischen Koordinaten der Sternwarten.

Die Seehöhen sind in allen Fällen angegeben, wo sie sich einigermaßen sicher ermitteln ließen.

Die geographischen Längen sind auf den Meridian von Greenwich bezogen und dem entsprechend ist die »Korrektion der Sternzeit« die Differenz: Orts-Sternzeit in mittlerer Mitternacht minus Greenwicher Sternzeit in mittlerer Mitternacht.

Die geozentrischen Koordinaten sind den Beschlüssen der Pariser Ephemeridenkonferenz vom Oktober 1911 gemäß unter Annahme der Abplattung 1 : 297 berechnet.

Bei Berechnung von log ϱ ist die Seehöhe berücksichtigt.

Normalzeiten der wichtigeren Länder (S. 348*).

Auf S. 348* sind die in den wichtigeren Ländern eingeführten Normalzeiten in zwei Gruppen zusammengestellt, je nachdem sie an den Meridian von Greenwich angeschlossen sind oder einen eigenen Landes-Meridian zugrunde legen.

Berichtigungen

Jahrbuch 1936—38. Zusatzkorrektionen zu den definitiven Verbesserungen des NFK siehe S. 370*.

Jahrbuch 1938, S. VII. Die Änderung der Präzession in Rektaszension ist $0\overset{s}{.}0000186\,t$ anstatt $0\overset{s}{.}00186\,t$.

S. 371*. Stern 308) ρ Puppis. $\Delta\alpha$ ist -22 anstatt -25.

Zusatzkorrektionen

für die definitiven Verbesserungen des NFK
für 1934.5 bis 1938.5 (B. J. 1936 bis 1938)
Δα in 0ˢ.001 Δδ in 0″.01

Nr.	Δα	Δδ	Nr.	Δα	Δδ	Nr.	Δα	Δδ	Nr.	Δα	Δδ
2	+ 1	—	234	− 3	—	440	+1	—	**632**	− 1	—
8	+ 4	—	**237**	− 1	—	442	+1	—	642	− 3	—
10	+ 1	—	247	− 1	—	443	+1	—	**645**	− 1	—
11	+ 4	—	248	−12	+1	448	+3	—	648	− 1	—
16	+ 1	—	259	− 2	—	451	+3	—	661	− 2	—
21	+ 1	—	260	− 7	+1	454	+3	—	675	+ 1	—
24	+ 3	—	264	+ 4	—	**455**	+1	—	678	− 6	—
29	+ 1	—	**265**	− 1	—	459	+6	—	686	− 1	—
31	+ 1	—	**280**	− 1	—	462	+1	—	698	− 3	—
32	+ 1	—	284	− 2	+1	**467**	+1	—	700	+ 1	—
34	+ 1	—	**292**	− 1	—	**468**	+1	—	704	− 1	—
41	+10	−1	300	− 2	+1	469	+2	—	**708**	− 1	—
46	+ 1	—	310	− 1	+1	472	+1	—	721	− 1	—
48	+ 1	−1	317	—	+1	474	+2	—	734	—	−1
51	+ 3	−1	318	−2	—	480	+1	—	748	− 1	−1
53	− 3	—	322	—	+1	**481**	+1	—	754	− 1	−1
55	+ 1	−1	331	− 4	—	487	+2	—	759	− 2	—
63	+ 1	−1	338	—	+1	493	+1	—	770	− 1	—
70	+ 2	−1	344	+ 1	+1	503	+4	+1	775	—	−1
76	+ 1	−1	355	+ 1	+1	514	+1	+1	787	+ 2	−1
87	+ 2	−1	357	+ 1	+1	518	+1	—	795	− 3	—
90	− 5	—	362	− 1	—	524	−3	—	805	+ 1	−1
92	+ 1	−1	363	+ 1	+1	530	+1	+1	809	− 1	—
105	+ 5	−2	**368**	+ 1	+1	542	+6	+2	810	+ 5	−1
108	—	−1	372	+ 3	+1	550	−1	—	817	− 1	—
113	− 1	—	387	+ 1	—	**558**	—	+1	820	+ 2	−1
115	+ 2	−2	**394**	+ 1	—	560	—	+1	**824**	—	−1
138	− 1	−1	395	+ 5	+1	567	—	+1	839	+15	−2
146	− 1	—	**398**	+ 1	—	569	−1	—	841	+ 1	—
166	—	−1	401	− 2	—	574	—	+1	865	+ 2	—
173	− 4	−1	403	+ 2	—	589	—	+1	874	+ 1	—
178	− 1	—	411	− 3	—	590	−2	+1	876	+ 1	—
182	− 1	—	413	+ 7	+1	**600**	−1	—	**877**	+ 1	—
191	−11	−1	**416**	+ 1	—	602	−1	—	882	+ 1	—
203	− 1	—	417	+ 1	—	606	−1	—	893	+ 2	—
205	− 5	—	429	+ 1	—	610	−2	+1	895	+ 1	—
214	+ 1	—	433	+ 2	—	611	−5	+1	**901**	+ 1	—
225	− 1	—	436	+ 1	—	612	−1	—	903	+ 1	—
233	− 2	—	438	+ 2	—	625	−2	—	904	+ 4	—

Die Sterne liegen über ± 60° Deklination mit Ausnahme der durch halbfetten Druck der Nummern kenntlich gemachten Sterne. Die Ephemeriden des Jahrbuches sind entsprechend zu verbessern. Für die Rektaszension ist es hierbei hinreichend, bei den Sternen über ± 60° Nr. 191 und 248 am Nordhimmel um je − 0ˢ.01 und Nr. 459 und 542 am Südhimmel um je + 0ˢ.01 zu verbessern.

Nr.	Name im FK3	1939.5 Δα (0ˢ001)	1939.5 Δδ (0″01)
1	α Andr	− 61	+ 14
2	β Cass	− 68	+ 27
3	ε Phoe	+149	+139
4	22 Andr	− 83	+ 46
5	$\varkappa^2$ Scul	− 14	+138
6	ϑ Scul	+117	+ 93
7	γ Pegs	− 37	+ 55
8	†Br 6 Ceph *m*	−175	+ 22
9	ι Ceti	− 25	+ 45
10	ζ Tucn	+134	+114
11	β Hydi	+ 19	+ 61
12	α Phoe	+115	+158
13	12 Ceti	− 61	+ 41
14	49 G. Ceti	− 4	+ 90
15	λ^1 Phoe	+121	+110
16	ϰ Cass	−144	+ 13
17	ζ Cass	− 95	+ 17
18	π Andr	− 79	0
19	ε Andr	− 68	+ 31
20	δ Andr	− 56	− 28
21	α Cass	− 46	+ 24
22	β Ceti	0	+ 17
23	η Phoe	− 48	+183
24	21 Cass	+ 14	+ 24
25	o Cass	− 82	+ 36
26	λ^2 Scul	+129	+ 96
27	ζ Andr	− 41	+ 18
28	δ Pisc	− 24	+ 11
29	Br 82 Cass	−158	− 3
30	φ^2 Ceti[1]	− 30	+ 23
31	λ Hydi	−317	+ 8
32	γ Cass	− 92	+ 30
33	μ Andr	− 56	+ 10
34	λ^2 Tucn	+318	+ 41
35	α Scul	+ 68	+ 96
36	ε Pisc	− 42	− 4
37	26 Ceti	− 75	+ 29
38	†β Phoe *m*	+149	+158
39	ι Tucn	+ 14	+ 15
40	η Ceti	+ 30	+ 29

[1] 19 Ceti

Nr.	Name im FK3	1939.5 Δα (0ˢ001)	1939.5 Δδ (0″01)
41	44 H. Ceph	− 84	− 42
42	β Andr	− 67	+ 8
43	τ Pisc	− 66	+ 64
44	102 G. Scul	+160	+ 29
45	υ Pisc	− 36	+ 15
46	ψ Cass	− 91	− 9
47	ϑ Ceti	− 31	− 5
48	δ Cass	− 81	− 6
49	γ Phoe	+110	+117
50	η Pisc	− 25	+ 31
51	40 Cass	−126	− 26
52	51 Andr[1]	− 37	+ 36
53	14 G. Hydi	− 43	+ 54
54	α Erid	− 26	+ 74
55	43 Cass	− 43	− 3
56	ν Pisc	− 53	+ 42
57	φ Pers	− 61	+ 31
58	129 G. Scul	+ 72	+ 38
59	τ Ceti	− 33	+ 46
60	o Pisc	− 38	+ 33
61	ε Scul	+ 70	+170
62	ζ Ceti	− 27	+ 19
63	ε Cass	− 99	+ 1
64	α Tria	− 64	+ 18
65	ξ Pisc	− 44	+ 71
66	β Aris	− 17	+ 11
67	ψ Phoe	+ 41	+131
68	χ Erid	+123	+188
69	η^2 Hydi	+ 24	+ 32
70	50 Cass	−108	+ 29
71	υ Ceti	− 26	+ 6
72	α Hydi	+ 72	+104
73	γ Andr *pr*	− 36	+ 56
74	α Aris	− 26	− 6
75	β Tria	− 56	+ 16
76	55 Cass	−106	− 9
77	Br 299 Andr[2]	− 79	+ 36
78	μ Forn	− 37	+ 73
79	γ Tria	− 59	0
80	67 Ceti	− 16	+ 37

[1] υ Pers [2] 6 Pers

Definitive Verbesserungen des NFK

Nr.	Name im FK3	1939.5 $\Delta\alpha$ $(0\overset{s}{.}001)$	1939.5 $\Delta\delta$ $(0\overset{''}{.}01)$
81	ϑ Aris	−50	+33
82	φ Erid	+61	+112
83	ϰ Forn	−18	+60
84	λ Horo	−44	+46
85	ξ^2 Ceti	−54	+19
86	ϰ Erid	+107	+122
87	36 H. Cass	−157	+17
88	λ^1 Forn	+100	+99
89	ν Aris	−52	+21
90	μ Hydi	−71	−26
91	δ Ceti	−48	+40
92	Br 366 Cass	−44	+5
93	ϑ Pers	−72	+46
94	35 Aris	−39	+15
95	ε Hydi	−12	+54
96	†γ Ceti	−19	+14
97	π Ceti	−35	−7
98	μ Ceti	−38	+14
99	η Pers	−99	+19
100	41 Aris	−55	+2
101	β Forn	+14	+41
102	τ^2 Erid	−34	+88
103	τ Pers	−58	+3
104	η Erid	−38	+36
105	47 H. Ceph	−159	−67
106	ϑ Erid *pr*	+108	−2
107	α Ceti	−17	+28
108	γ Pers	−57	+21
109	ρ Pers	−62	+2
110	μ Horo	+88	+79
111	β Pers	−50	+28
112	ι Pers	−67	+70
113	ϑ Hydi	+74	−18
114	δ Aris	−37	0
115	48 H. Ceph	+70	−64
116	94 Ceti	−94	+24
117	†α Forn[1]	+35	+31
118	38 G. Horo	+77	+134
119	82 G. Erid[2]	−34	+161
120	α Pers	−41	+34

[1] 12 Erid [2] e Erid

Nr.	Name im FK3	1939.5 $\Delta\alpha$ $(0\overset{s}{.}001)$	1939.5 $\Delta\delta$ $(0\overset{''}{.}01)$
121	o Taur	−51	+38
122	2 H. Caml	−73	−39
123	ξ Taur	−42	+103
124	σ Pers	−71	+8
125	5 Taur[1]	−34	+61
126	ϰ Reti	+195	+114
127	ε Erid	−65	+52
128	45 G. Horo	+145	+23
129	Grb 716 Caml	−82	−25
130	110 G. Erid[2]	−30	+20
131	δ Pers	−64	+23
132	†o Pers	−55	+57
133	δ Forn	−29	+84
134	ν Pers	−65	+38
135	δ Erid	−48	+2
136	17 Taur	−59	+17
137	24 Erid	−62	+41
138	γ Caml[3]	−57	+16
139	η Taur	−58	+30
140	τ^6 Erid	+2	−18
141	β Reti	−3	+131
142	27 Taur	−47	+18
143	138 G. Erid[4]	−70	+62
144	ζ Pers	−69	+11
145	†9 H. Caml	−57	+48
146	γ Hydi	+9	+62
147	ε Pers	−69	+24
148	ξ Pers	−85	+57
149	γ Erid	−37	+41
150	λ Taur	−38	+16
151	ν Taur	−72	+75
152	48 Pers[5]	−114	+39
153	174 G. Erid	−25	0
154	o^1 Erid	−67	+35
155	α Horo	+48	+102
156	α Reti	+35	+7
157	γ Dora	+86	+121
158	54 Pers	−58	+1
159	γ Taur	−50	+47
160	†υ^4 Erid *m*	+32	+77

[1] f Taur [2] y Erid [3] 5 H. Caml [4] g Erid [5] c Pers

Nr.	Name im FK3	1939·5 Δα $(0\overset{s}{.}001)$	1939·5 Δδ $(0\overset{''}{.}01)$
161	212 G. Erid	−140	−109
162	δ Taur	−58	+30
163	η Reti	−45	+85
164	ε Taur	−76	+10
165	1 Caml *sq*	−114	+3
166	δ Mens	+141	−23
167	δ Cael	+5	+103
168	α Taur	−40	+2
169	ν Erid	−59	+25
170	υ^2 Erid	−6	−32
171	α Dora	−169	−26
172	53 Erid	−7	+44
173	Grb 848 Caml	−38	+4
174	τ Taur	−91	+33
175	4 Caml	−34	+20
176	μ Erid	−84	+22
177	μ Mens	−44	+16
178	α Caml[1])	−59	+10
179	π^4 Orio	−59	+74
180	π^5 Orio	−58	+48
181	ι Auri	−87	+16
182	β Caml[2])	−90	−5
183	ε Auri	−68	+63
184	ι Taur	−98	+20
185	η Auri	−89	+41
186	ε Leps	−59	+6
187	η^2 Pict	+99	−77
188	β Erid	−79	+22
189	ζ Dora	+87	+79
190	λ Erid	−69	+19
191	19 H. Caml	+48	−11
192	μ Auri	−79	+3
193	α Auri	−52	+44
194	β Orio	−30	+7
195	τ Orio	−48	+7
196	ϑ Dora	−83	−30
197	o Colm	+1	−58
198	12 G. Colm	−76	+55
199	ζ Pict	−30	+13
200	†η Orio *m*	−82	+17
201	γ Orio	−64	+50
202	β Taur	−69	+12
203	17 Caml	−78	+9
204	β Leps	−79	+32
205	Grb 966 Caml	−149	+50
206	δ Orio	−43	+31
207	α Leps	−48	+31
208	φ^1 Orio	−57	+57
209	ι Orio	−72	+73
210	ε Orio	−49	+34
211	ζ Taur	−74	+27
212	β Dora	−27	+42
213	†σ Orio *m*	−57	+31
214	γ Mens	+92	−33
215	α Colm	−25	+97
216	o Auri	−98	+43
217	γ Leps	−89	+50
218	130 Taur	−111	−17
219	ζ Leps	−50	−9
220	κ Orio	−55	+5
221	ν Auri	−54	−23
222	δ Leps	−35	+50
223	β Colm	−10	+10
224	α Orio	−44	−12
225	δ Auri	−79	−27
226	η Leps	−69	−1
227	β Auri	−101	+39
228	†ϑ Auri	−96	+29
229	η Colm	−102	+92
230	66 Orio	−56	+62
231	1 G. Pupp	−76	+78
232	ν Orio	−101	+61
233	36 Caml	+51	+15
234	22 H. Caml	−101	−2
235	δ Pict	−7	+112
236	†η Gemi	−90	0
237	2 Lync	−101	−45
238	κ Colm	−95	+72
239	α Mens	+422	+50
240	ζ CMaj	−30	+4

[1]) 9 Caml [2]) 10 Caml

Nr.	Name im FK3	1939·5 $\Delta\alpha$ ($0^s.001$)	$\Delta\delta$ ($0''.01$)
241	μ Gemi	− 90	− 10
242	ψ^1 Auri	−112	− 11
243	β CMaj	− 40	− 26
244	8 ε Mono[1])	− 86	+ 50
245	α Cari[2])	+ 27	+ 70
246	10 Mono	− 88	+ 4
247	8 Lync	− 81	− 5
248	23 H. Caml	− 41	+ 89
249	ξ^2 CMaj	− 50	+ 17
250	51 Auri	− 80	+ 2
251	γ Gemi	− 60	+ 12
252	ν Pupp[3])	− 58	+116
253	†S Mono	− 96	− 8
254	ε Gemi	− 98	− 6
255	ψ^5 Auri	−118	+ 57
256	ξ Gemi	− 78	+ 30
257	α CMaj *cg*	− 47	+ 12
258	18 Mono	−124	+ 52
259	43 Caml	−152	+ 19
260	24 H. Caml	− 96	+ 24
261	ϑ Gemi	−101	+ 25
262	α Pict	− 93	+ 63
263	τ Pupp[4])	− 61	+149
264	ζ Mens	+ 85	−178
265	†15 Lync *m*	−106	− 32
266	ϑ CMaj	− 59	+ 1
267	ι Voln	− 47	+ 27
268	ε CMaj	− 4	+ 10
269	ζ Gemi	− 88	+ 2
270	o^2 CMaj	− 43	+ 16
271	γ CMaj	− 96	+ 37
272	27 G. Cari	+ 55	+ 46
273	δ CMaj	− 9	+ 18
274	63 Auri	−109	− 16
275	J Pupp	+ 2	+ 40
276	64 Auri	−147	+ 62
277	λ Gemi	− 72	+ 37
278	π Pupp[5])	0	+ 64
279	δ Gemi	−100	− 24
280	19 Lync *sq*	−113	+ 9

[1]) 8 Mono [2]) *α* Argus [3]) *ν* Argus
[4]) *τ* Argus [5]) *π* Argus

Nr.	Name im FK3	1939·5 $\Delta\alpha$ ($0^s.001$)	$\Delta\delta$ ($0''.01$)
281	δ Voln	−163	+ 72
282	ι Gemi	−105	− 23
283	η CMaj	− 51	− 59
284	Grb 1308 Caml	−139	+ 31
285	β CMin	− 86	+ 8
286	ρ Gemi	− 88	− 73
287	α Gemi *cg*	− 66	−270
288	108 G. Pupp	− 65	+108
289	25 Mono	− 81	− 19
290	127 G. Pupp[1])	− 51	+ 25
291	α CMin *cg*	− 29	− 3
292	24 Lync	−102	+ 7
293	26 α Mono[2])	− 15	− 11
294	κ Gemi	− 94	+ 9
295	β Gemi	− 75	− 5
296	π Gemi	−124	0
297	ζ Voln	+296	+ 44
298	†9 Pupp *m*[3])	− 83	0
299	26 Lync	−126	+ 36
300	Grb 1374 Caml	− 27	− 11
301	213 G. Pupp[4])	− 55	+ 9
302	53 Caml	−328	+ 9
303	χ Cari[5])	−119	+ 1
304	27 Mono	−159	− 63
305	χ Gemi	− 93	0
306	ζ Pupp[6])	0	+ 38
307	27 Lync	−115	− 14
308	ρ Pupp[7])	− 22	+ 40
309	γ Velr[8])	− 9	+ 49
310	Br 1147 Caml	+ 8	− 4
311	20 Pupp[9])	− 84	+ 16
312	β Cncr	− 71	+ 13
313	289 G. Pupp[10])	+ 33	+ 27
314	31 Lync	−100	+ 32
315	ε Cari[11])	− 80	− 6
316	Br 1197 Hyda	− 83	− 20
317	o UMaj	−112	+ 4
318	ϑ Cham	+420	+ 38
319	β Voln	+ 16	+110
320	Grb 1450 Lync	− 78	− 10

[1]) f Pupp [2]) 26 Mono [3]) 205 G. Pupp
[4]) *α* Pupp [5]) *χ* Argus [6]) *ζ* Argus [7]) *ι* Navis
[8]) *γ* Argus [9]) 20 Navis [10]) q Pupp [11]) *ε* Argus

Nr.	Name im FK3	1939·5 Δα (0ˢ001)	Δδ (0″01)
321	η Cncr	−115	+ 9
322	Grb 1446 Caml	−121	+ 1
323	Grb 1460 U Maj	− 84	− 1
324	48 G. Velr[1]	− 2	+ 86
325	6 Hyda	− 34	− 11
326	δ Cncr	− 81	+ 26
327	α Pyxi	− 37	− 2
328	ι Cncr	− 92	+ 20
329	†ε Hyda *m*	− 69	− 26
330	†δ Velr *m*[2]	− 32	+106
331	η Cham	+399	− 88
332	γ Pyxi	− 62	− 72
333	†σ^2 Cncr *m*	− 78	+ 18
334	ζ Hyda	− 79	− 6
335	ι U Maj	− 95	+ 44
336	108 G. Cari[3]	− 53	− 81
337	α Cncr	− 80	+ 17
338	ρ U Maj	−113	+ 13
339	Br 1268 Lync[4]	−135	+ 53
340	Grb 1501 U Maj	−108	− 12
341	κ U Maj	−102	+ 47
342	97 G. Velr[5]	+ 49	+ 78
343	α Voln	+ 56	+ 80
344	†σ^2 U Maj	−231	− 68
345	λ Velr[6]	+ 21	+ 26
346	36 Lync	−122	+ 35
347	ϑ Hyda	− 66	+ 4
348	β Cari[7]	+ 77	+ 28
349	†38 Lync	−101	+ 4
350	83 Cncr	−109	+ 7
351	ι Cari[8]	+ 48	+ 2
352	α Lync[9]	− 63	+ 5
353	κ Velr[10]	+ 23	+ 34
354	α Hyda	− 69	− 25
355	23 U Maj[11]	−129	− 4
356	ε Antl	− 33	+ 43
357	24 U Maj[12]	−150	+ 7
358	ϑ U Maj	− 87	+ 20
359	†ψ Velr *m*[13]	− 17	− 5
360	10 LMin	−109	− 21

[1]) e Velr [2]) δ Argus [3]) c Cari [4]) 10 UMaj
[5]) c Velr [6]) λ Argus [7]) β Argus [8]) ι Argus
[9]) 40 Lync [10]) κ Argus [11]) h UMaj [12]) d UMaj
[13]) ψ Argus

Nr.	Name im FK3	1939·5 Δα (0ˢ001)	Δδ (0″01)
361	N Velr	− 95	− 17
362	H Cari	+ 93	+ 38
363	Grb 1564 U Maj	−113	+ 3
364	κ Hyda	− 73	− 70
365	o Leon	− 74	− 9
366	ϑ Antl	− 48	− 19
367	ε Leon	− 70	+ 12
368	υ U Maj	−111	− 12
369	†υ Cari[1]	− 12	+ 57
370	6 Sext	− 82	0
371	μ Leon	− 48	− 23
372	Grb 1586 U Maj	− 80	+ 17
373	183 G. Hyda	−108	+134
374	19 LMin	−101	− 11
375	φ Velr[2]	− 35	+ 68
376	12 Sext	− 81	− 55
377	η Antl	− 44	+ 2
378	π Leon	− 68	− 5
379	η Leon	− 59	+ 6
380	α Leon	− 54	+ 28
381	λ Hyda	− 85	− 27
382	191 G. Velr[3]	+ 60	− 13
383	λ U Maj	− 79	+ 33
384	ζ Leon	− 77	− 27
385	ω Cari[4]	−204	+ 4
386	μ U Maj	− 80	+ 39
387	30 H. U Maj	− 47	− 36
388	25 Sext	− 53	+ 37
389	μ Hyda	− 85	+ 9
390	β LMin[5]	− 94	− 15
391	J Cari	+184	− 81
392	α Antl	− 28	+ 45
393	196 G. Cari[6]	+ 15	+ 43
394	36 U Maj	− 82	− 9
395	9 H. Drac	− 68	− 27
396	ρ Leon	− 57	− 2
397	203 G. Cari[7]	−127	+ 5
398	37 U Maj	− 97	− 1
399	44 Hyda	− 98	+ 6
400	†222 G. Velr *m*[8]	+122	+ 83

[1]) ν Argus [2]) φ Argus [3]) q Velr [4]) ω Argus
[5]) 31 LMin [6]) s Cari [7]) p Cari [8]) p Velr

Nr.	Name im FK3	1939·5 $\Delta\alpha$ $(0^{s}.001)$	1939·5 $\Delta\delta$ $(0''.01)$
401	γ Cham	−127	− 77
402	225 G.Velr[1])	+269	+105
403	35 H. UMaj	+ 5	+ 12
404	33 Sext	− 71	+ 6
405	41 LMin	− 89	− 45
406	ϑ Cari[2])	− 41	+ 33
407	42 LMin	− 99	− 17
408	†μ Velr[3])	+ 94	+ 93
409	53 Leon[4])	− 71	+ 21
410	ν Hyda	− 50	+ 23
411	δ^2 Cham	−263	− 52
412	46 LMin	− 90	− 18
413	Br 1508 Drac	− 8	− 30
414	ι Antl	− 41	+ 45
415	239 G.Velr[5])	− 83	+ 14
416	β UMaj	− 76	+ 19
417	α UMaj	− 58	+ 22
418	χ Leon	− 63	− 17
419	χ^1 Hyda[6])	+ 19	+ 34
420	ψ UMaj	− 83	+ 38
421	β Crat	− 37	− 25
422	δ Leon	− 69	+ 12
423	ϑ Leon	− 49	− 4
424	Grb 1757 UMaj	− 53	+ 50
425	ν UMaj	− 96	+ 9
426	δ Crat	− 36	+ 12
427	σ Leon	− 67	− 4
428	π Cent	− 2	+ 25
429	Grb 1771 UMaj	− 78	− 31
430	†ι Leon	− 6	+ 40
431	γ Crat	− 45	− 44
432	58 UMaj	−117	+ 30
433	λ Drac	− 52	+ 16
434	ξ Hyda	− 12	+ 40
435	C^2 Cent	+ 33	− 26
436	λ Cent	− 1	+ 49
437	υ Leon	− 56	+ 30
438	π Cham	−266	+ 57
439	o Hyda	− 61	+ 22
440	3 Drac	− 95	− 30
441	χ UMaj	− 91	+ 28
442	λ Musc	− 20	+ 47
443	65 G. Cent	−148	+ 81
444	β Leon	− 53	− 10
445	β Virg	− 55	+ 21
446	B Cent	+ 93	+ 94
447	γ UMaj	− 68	+ 37
448	†ε Cham *m*	+127	+ 37
449	88 G. Cent	+ 84	+ 38
450	o Virg	− 62	+ 55
451	Grb 1852 Caml	− 28	− 18
452	δ Cent	+ 14	+ 20
453	ε Corv	− 38	+ 5
454	Br 1634 Caml[1])	− 62	− 24
455	δ Cruc	− 22	+118
456	δ UMaj	−132	+ 12
457	γ Corv	− 45	+ 15
458	2 CVen	−137	+ 45
459	β Cham	+ 44	+ 9
460	η Virg	− 60	+ 13
461	6 CVen	− 77	− 19
462	α Cruc *m*	− 2	+108
463	323 G. Hyda	− 10	+130
464	σ Cent	− 2	+ 56
465	δ Corv	− 57	+ 9
466	20 Coma	−113	+ 32
467	74 UMaj	− 15	+ 11
468	γ Cruc	+ 25	+ 70
469	γ Musc	−114	+ 86
470	β CVen[2])	−101	+ 59
471	β Corv	+ 12	+ 24
472	κ Drac	− 63	+ 12
473	24 Coma *sq*	− 96	+ 13
474	α Musc	− 99	+117
475	χ Virg	− 75	+ 47
476	†γ Cent *m*	+ 37	+ 66
477	†γ Virg *m*	− 68	+ 34
478	76 UMaj	−127	− 23
479	330 G. Hyda	− 72	+ 87
480	†β Musc *m*	− 19	+ 49

Footnotes for Nr. 401–440: [1]) x Velr [2]) ϑ Argus [3]) μ Argus [4]) l Leon [5]) i Velr [6]) χ Hyda

Footnotes for Nr. 441–480: [1]) 4 H. Drac [2]) 8 CVen

Nr.	Name im FK3	1939.5	
		Δα (0.ˢ001)	Δδ (0.″01)
481	β Cruc	+ 37	+ 64
482	150 G. Cent[1])	+ 35	+100
483	ε UMaj	− 58	+ 26
484	δ Virg	− 42	+ 46
485	α CVen *sq*[2])	− 59	+ 4
486	8 Drac	− 52	− 10
487	δ Musc	+219	+ 10
488	ε Virg	− 56	+ 13
489	ξ^2 Cent	− 17	+108
490	ϑ Virg	− 49	+ 41
491	17 CVen	− 97	+ 52
492	β Coma[3])	− 70	− 5
493	η Musc	−218	+ 83
494	20 CVen	− 69	+ 68
495	γ Hyda	− 38	+ 46
496	ι Cent	+ 39	+ 41
497	ζ UMaj *pr*	− 68	+ 4
498	α Virg	− 29	+ 10
499	Grb 2001 UMin	− 35	+ 17
500	69 H. UMaj	− 67	− 13
501	ζ Virg	− 48	+ 13
502	17 H. CVen	− 31	+ 15
503	49 G. Cham	+ 28	− 6
504	ε Cent	+ 66	+117
505	Grb 2029 UMin	− 86	− 29
506	1 Cent[4])	+ 2	+ 50
507	τ Boot	− 47	+ 44
508	μ Cent	+ 19	− 19
509	η UMaj	− 93	+ 48
510	89 Virg	− 66	− 18
511	10 Drac[5])	− 91	− 41
512	ζ Cent	+ 63	+123
513	η Boot	− 66	+ 12
514	294 G. Cent	− 86	+ 10
515	47 Hyda	− 47	+ 86
516	τ Virg	− 68	+ 49
517	11 Boot	−107	+ 39
518	β Cent	− 33	+120
519	π Hyda	− 23	+ 77
520	ϑ Cent	+ 29	+ 71

[1]) n Cent [2]) 12 CVen sq [3]) 43 Coma [4]) i Cent [5]) i Drac

Nr.	Name im FK3	1939.5	
		Δα (0.ˢ001)	Δδ (0.″01)
521	α Drac	−102	− 12
522	12 *d* Boot[1])	−101	+ 41
523	κ Virg	− 57	+ 15
524	4 UMin	− 36	− 24
525	ι Virg	− 10	+ 33
526	α Boot	− 40	+ 30
527	λ Boot	− 83	+ 47
528	ι Boot	− 90	+ 31
529	υ Cent	+108	+160
530	10 G. Circ	+ 93	+149
531	ϑ Boot	− 95	+ 33
532	52 Hyda	+ 10	+ 33
533	φ Virg	− 70	+ 26
534	ρ Boot	− 82	+ 32
535	γ Boot	− 84	+ 38
536	Grb 2125 Drac	−150	− 14
537	η Cent	− 10	+ 25
538	α Cent *cg*	+ 43	− 8
539	α Circ	+ 95	− 10
540	33 Boot	− 66	+ 46
541	α Lupi	− 20	+107
542	α Apds	+288	+ 90
543	†ζ Boot *m*	− 66	+ 51
544	371 G. Cent[2])	+ 6	+ 89
545	μ Virg	− 42	+ 38
546	30 G. Lupi[3])	− 42	+ 67
547	109 Virg	− 55	+ 62
548	α^2 Libr[4])	− 17	+ 29
549	Grb 2164 Drac	− 56	+ 44
550	β UMin	−115	+ 24
551	P. XIV 221 Boot	− 68	+ 88
552	β Lupi	+ 47	+122
553	κ Cent	− 19	+ 57
554	2 H. UMin	− 13	− 44
555	β Boot	− 79	+ 69
556	σ Libr[5])	− 24	+ 59
557	ψ Boot	− 74	+ 48
558	ζ Lupi	+ 34	+ 12
559	ι Libr	− 28	+ 48
560	γ TriA	− 78	+ 55

[1]) d Boot [2]) c^1 Cent [3]) b Lupi [4]) *α* Libr [5]) *γ* Scor

Nr.	Name im FK3	1939·5	
		$\Delta\alpha$ ($0^s.001$)	$\Delta\delta$ ($0''.01$)
561	β Circ	— 24	+ 48
562	3 Serp	— 77	+ 56
563	δ Boot	—103	+ 23
564	β Libr	— 60	+ 40
565	1 H. UMin	—171	+ 28
566	φ^1 Lupi	— 29	+ 65
567	$\varkappa^1$ Apds	+ 10	+ 13
568	μ Boot *pr*	— 61	+ 16
569	γ UMin	—181	+ 21
570	τ^1 Serp	— 67	+ 65
571	ι Drac	—134	— 3
572	β CorB	— 96	+ 45
573	ν^1 Boot	— 85	+ 42
574	ε TriA	+ 65	+ 72
575	†γ Lupi *m*	+ 36	+ 83
576	ϑ CorB	— 64	+ 59
577	γ Libr	— 58	— 9
578	α CorB	— 66	+ 46
579	υ Libr[1])	+ 1	+ 66
580	φ Boot	—101	+ 29
581	†γ CorB	—103	+ 60
582	α Serp	— 45	+ 18
583	β Serp	— 72	+ 42
584	ϰ Serp	— 76	+ 65
585	μ Serp	— 36	+ 29
586	χ Lupi	— 9	— 23
587	12 H. Drac	—118	+ 15
588	ε Serp	— 49	+ 23
589	β TriA	— 98	+ 72
590	ζ UMin	—134	— 23
591	γ Serp	— 63	+ 49
592	π Scor	+ 13	+103
593	ε CorB	— 53	+ 30
594	δ Scor	— 29	+ 76
595	Grb 2296 Drac	— 60	— 13
596	δ Norm	+ 6	+157
597	β Scor *pr*	— 12	+ 46
598	ϑ Drac	—134	— 16
599	ϑ Lupi	+ 26	+ 38
600	ϰ Norm	+149	+224

[1]) 3 H. Scor

Nr.	Name im FK3	1939·5	
		$\Delta\alpha$ ($0^s.001$)	$\Delta\delta$ ($0''.01$)
601	φ Herc	— 90	+ 27
602	δ TriA	— 48	+ 48
603	δ Ophi	— 51	+ 29
604	γ^2 Norm	+ 81	+ 26
605	ε Ophi	— 35	+ 61
606	19 UMin	—151	+ 11
607	σ Scor	— 20	+ 72
608	τ Herc	— 77	+ 34
609	γ Herc	— 43	+ 21
610	ζ TriA	+228	+102
611	γ Apds	—247	+ 12
612	η UMin	—133	— 37
613	ω Herc	— 63	+ 63
614	Grb 2343 Drac	—119	+ 8
615	†η Drac	— 77	— 7
616	α Scor	— 7	+ 43
617	†λ Ophi *m*	— 37	+116
618	β Herc	— 62	+ 30
619	A Drac	— 83	+ 1
620	τ Scor	— 10	+ 63
621	σ Herc	— 99	+ 36
622	ζ Ophi	— 49	+ 16
623	Grb 2373 UMin	— 95	+ 1
624	Br 2114 Ophi[1])	— 43	+ 2
625	α TriA	+ 76	+ 90
626	η Herc	— 87	0
627	Grb 2377 Drac	—137	+ 56
628	ε Scor	+ 39	+ 23
629	49 Herc	— 77	+ 56
630	†ζ^2 Scor	+ 87	+ 38
631	ζ Arae	— 1	+ 74
632	ε^1 Arae	+ 85	+155
633	ϰ Ophi	— 47	+ 31
634	ε Herc	— 85	+ 31
635	60 Herc	— 57	+ 36
636	Grb 2415 Herc	— 95	— 22
637	†η Ophi *m*	— 20	+ 33
638	η Scor	— 36	+ 77
639	ζ Drac	— 92	+ 2
640	†α Herc *pr*	— 42	+ 51

[1]) 24 Scor

Nr.	Name im FK3	1939.5 $\Delta\alpha$ $(0\overset{s}{.}001)$	1939.5 $\Delta\delta$ $(0\overset{''}{.}01)$
641	δ Herc	− 71	− 1
642	ι Apds	+135	+ 57
643	π Herc	− 73	+ 14
644	ϑ Ophi	− 7	+ 30
645	β Arae	− 18	+ 92
646	45 Ophi[1]	+ 7	+ 28
647	27 H. Ophi	− 87	+ 46
648	δ Arae	− 45	+ 57
649	υ Scor	+121	+ 63
650	77 Herc[2]	−107	+ 82
651	α Arae	+ 9	+125
652	λ Scor	+ 39	+ 29
653	β Drac	− 92	+ 30
654	ϑ Scor	+ 46	+118
655	ν^1 Drac	−141	+ 30
656	α Ophi	− 34	+ 40
657	ν^2 Drac	−157	+ 11
658	ξ Serp	− 25	+ 28
659	27 Drac[3]	− 47	+ 3
660	$\varkappa$ Scor	+ 7	− 9
661	η Pavo	+ 80	+ 8
662	μ Arae	− 2	+106
663	ι Herc	− 80	+ 58
664	ω Drac	−110	+ 1
665	β Ophi	− 44	+ 38
666	ι^1 Scor	+ 33	− 9
667	μ Herc	− 34	+ 51
668	γ Ophi	− 51	+ 39
669	G Scor	+ 11	+ 59
670	ψ Drac *pr*	− 47	+ 1
671	ξ Drac	−116	+ 2
672	ϑ Herc	− 69	+ 1
673	ν Ophi	− 36	− 6
674	ξ Herc	− 69	+ 48
675	35 Drac	− 65	+ 29
676	γ Drac	− 79	+ 20
677	67 Ophi	− 66	+ 18
678	66 G. Apds	+476	− 77
679	γ Sgtr	+ 6	+ 62
680	72 Ophi	− 48	+ 23

[1]) d Ophi [2]) x Herc [3]) f Drac

Nr.	Name im FK3	1939.5 $\Delta\alpha$ $(0\overset{s}{.}001)$	1939.5 $\Delta\delta$ $(0\overset{''}{.}01)$
681	o Herc	− 73	+ 60
682	μ Sgtr	− 20	+ 29
683	η Sgtr	− 1	+ 3
684	Grb 2533 Lyra	− 66	+ 22
685	36 Drac	− 86	+ 2
686	ξ Pavo	+104	−106
687	δ Sgtr	− 11	+ 22
688	η Serp	− 43	+ 25
689	ε Sgtr	+ 16	+ 7
690	109 Herc	− 59	+ 94
691	α Tele	− 14	+ 15
692	λ Sgtr	− 11	+ 41
693	†φ Drac *m*	− 74	+ 62
694	†39 Drac[1])	−122	+ 27
695	χ Drac	−101	+ 31
696	γ Scut[2])	− 28	− 31
697	ϑ CorA	+ 25	+ 27
698	ζ Pavo	+217	+ 52
699	α Lyra	− 55	+ 6
700	Grb. 2655 Drac	− 92	+ 35
701	Grb 2640 Drac	− 73	− 10
702	ε Scut[3])	− 48	− 9
703	110 Herc	− 44	+ 41
704	λ Pavo	+ 62	+ 44
705	β Lyra	− 74	− 7
706	σ Sgtr	+ 8	+ 63
707	o Drac	−106	+ 5
708	λ Tele	+ 58	− 73
709	ϑ Serp *pr*	− 41	+ 61
710	ξ^2 Sgtr[4])	− 22	+ 27
711	R Lyra	−110	+ 48
712	ε Aqil	− 19	+ 41
713	γ Lyra	− 54	+ 15
714	υ Drac	−117	+ 46
715	†ζ Sgtr *m*	+ 24	− 27
716	ζ Aqil	− 37	+ 41
717	λ Aqil	− 43	+ 3
718	α CorA	+ 48	+ 82
719	ι Lyra	− 85	+ 28
720	π Sgtr	− 5	− 2

[1]) b Drac [2]) 2 H. Scut [3]) 5 H. Scut [4]) ξ Sgtr

Definitive Verbesserungen des NFK

Nr.	Name im FK3	1939.5 Δα (0.s001)	1939.5 Δδ (0.″01)
721	†60 G. Pavo *m*	+64	−12
722	43 Sgtr[1]	−27	−36
723	δ Drac	−103	+38
724	ϑ Lyra	−44	+24
725	ω Aqil	−54	+32
726	ϰ Cygn	−88	+36
727	υ Sgtr	−59	−10
728	α Sgtr	+19	+7
729	τ Drac	−84	+24
730	δ Aqil	−39	+20
731	186 G. Sgtr	+8	+17
732	β Cygn *pr*	−43	+24
733	ι Cygn	−63	+38
734	Grb 2900 Drac	−418	+30
735	ι Tele	+119	+6
736	52 Sgtr[2]	−10	+20
737	ϰ Aqil	−71	−20
738	ϑ Cygn	−42	+50
739	ν Tele	+66	+17
740	15 Cygn	−65	−12
741	γ Aqil	−31	+21
742	†δ Cygn	−79	+64
743	δ Sgte	−53	−5
744	51 Aqil	−38	−40
745	α Aqil	−16	+20
746	η Aqil	−57	+32
747	†ε Drac	−83	+74
748	ε Pavo	+263	−20
749	β Aqil	−33	+8
750	†ψ Cygn	−68	+21
751	ϑ^1 Sgtr	+38	+70
752	γ Sgte	−40	+26
753	62 Sgtr[3]	−3	+19
754	δ Pavo	+18	+94
755	ξ Tele	+162	+71
756	ϑ Aqil	−32	+12
757	31 o^1 Cygn[4]	−79	+34
758	33 Cygn	−53	−8
759	ϰ Ceph	+1	+13
760	24 Vulp	−72	+36
761	α^2 Capr	−34	−31
762	β Capr	−9	−9
763	$\varkappa^1$ Sgtr	−60	+58
764	α Pavo	−40	−15
765	γ Cygn	−50	+7
766	†ρ Capr	−38	−11
767	ϑ Ceph	−80	+28
768	ε Delf	−48	+54
769	α Indi	+88	+60
770	73 Drac	−105	+3
771	†β Delf *m*	−42	+43
772	ϰ Delf	−57	+11
773	υ Capr	−35	+5
774	α Delf	−62	+49
775	β Pavo	+2	+97
776	η Indi	+78	+94
777	α Cygn	−54	+37
778	δ Delf	−57	+52
779	ψ Capr	−15	+29
780	ε Cygn	−77	+11
781	ε Aqar	−20	−14
782	6 H. Ceph	−60	+23
783	η Ceph	−52	+30
784	†λ Cygn *m*	−57	−23
785	β Indi	+144	+27
786	32 Vulp	−65	+5
787	α Octn	+235	−63
788	ν Cygn	−65	+61
789	11 Aqar	−34	+20
790	ζ Micr	+48	+91
791	A Capr	+26	+35
792	ξ Cygn	−91	+56
793	61 Cygn *pr*	−63	−11
794	ν Aqar	−53	−12
795	Br 2777 Ceph	−157	−2
796	23 G. Indi	+237	+208
797	ζ Cygn	−58	+40
798	†Grb 3415 Ceph *m*	−54	+7
799	†τ Cygn	−66	+6
800	α Equl	−53	+32

[1] d Sgtr [2] h Sgtr [3] c Sgtr [4] o^1 Cygn sq

Nr.	Name im FK3	1939·5 $\Delta\alpha$ ($0\overset{s}{.}001$)	1939·5 $\Delta\delta$ ($0\overset{''}{.}01$)
801	ε Micr[1])	− 12	+ 39
802	ϑ^1 Micr	− 110	− 79
803	α Ceph	− 66	+ 16
804	1 Pegs	− 53	+ 48
805	γ Pavo	+ 164	+ 54
806	ζ Capr	− 23	+ 42
807	71 Cygn[2])	− 86	+ 40
808	β Aqar	− 25	+ 11
809	β Ceph	− 55	+ 46
810	ν Octn	+ 317	+100
811	74 Cygn	− 68	+ 51
812	γ Capr	− 38	− 32
813	13 H. Ceph	− 142	− 2
814	ι PscA	+ 36	− 11
815	ε Pegs	− 38	+ 39
816	†κ Pegs *m*	− 53	+ 38
817	11 Ceph	− 57	+ 44
818	λ Capr	− 66	+ 5
819	δ Capr	− 14	+ 18
820	o Indi	+ 241	+110
821	π^2 Cygn	− 78	+ 43
822	γ Grus	+ 31	+ 56
823	16 Pegs	− 62	+ 12
824	δ Indi	+ 117	+157
825	ε Indi	− 11	+104
826	20 Pegs	− 52	+ 57
827	α Aqar	− 28	+ 28
828	ι Aqar	− 26	0
829	α Grus	0	+159
830	20 Ceph	− 78	+ 22
831	ι Pegs	− 63	+ 44
832	μ PscA	+ 113	+ 38
833	27 Pegs	− 100	+ 13
834	ϑ Pegs	− 58	+ 44
835	π Pegs	− 69	+ 14
836	ζ Ceph	− 41	+ 27
837	24 Ceph	− 13	+ 38
838	λ PscA	− 26	+ 14
839	ε Octn	+1072	+ 31
840	ϑ Aqar	− 32	+ 12
841	α Tucn	+ 53	+ 83
842	γ Aqar	− 25	+ 51
843	31 Pegs	− 30	+ 62
844	β Lacr[1])	− 75	+ 43
845	ν Grus	+ 23	+ 45
846	δ^1 Grus	+ 27	+ 56
847	δ Ceph	− 82	+ 9
848	α Lacr[2])	− 94	+ 41
849	υ Aqar	− 46	+ 13
850	η Aqar	− 36	+ 43
851	31 Ceph	− 28	+ 45
852	10 Lacr	− 81	+ 19
853	30 Ceph	−145	+ 15
854	ε PscA	+ 25	+ 26
855	ζ Pegs	− 46	+ 42
856	β Grus	+ 95	+139
857	η Pegs	− 62	+ 72
858	13 Lacr	− 65	+ 43
859	λ Pegs	− 54	+ 28
860	ε Grus	+ 78	+ 78
861	τ Aqar	− 28	+ 25
862	μ Pegs	− 62	+ 31
863	ι Ceph	− 44	+ 34
864	λ Aqar	− 35	+ 19
865	ρ Indi	+158	+ 75
866	δ Aqar	0	+ 2
867	α PscA	+ 55	− 4
868	ζ Grus	+ 20	+ 56
869	o Andr	− 81	+106
870	β Pegs	− 64	+ 39
871	α Pegs	− 32	+ 29
872	†ϑ Grus	+ 54	+140
873	88 Aqar[3])	+ 6	+ 29
874	†π Ceph	−103	+ 25
875	Br 3077 Cass	−148	+ 32
876	25 G. Tucn	+116	+164
877	γ Tucn	+124	+ 56
878	γ Pisc	− 22	+ 48
879	γ Scul	+ 9	+ 52
880	τ Pegs	− 46	+ 72

Nr. 801–840: 1) 4 PscA 2) g Cygn

Nr. 841–880: 1) 3 Lacr 2) 7 Lacr 3) c^2 Aqar

Nr.	Name im FK3	1939.5 Δα $(0^s.001)$	1939.5 Δδ $(0''.01)$
881	υ Pegs	− 54	+ 45
882	4 Cass	−105	+ 35
883	o Grus	+173	+ 78
884	κ Pisc	− 53	+ 23
885	70 Pegs	− 27	+ 77
886	β Scul	+ 16	+ 64
887	†72 Pegs *m*	− 67	+ 4
888	248 G. Aqar	− 45	+ 17
889	11 G. Phoe	+ 74	+194
890	λ Andr	− 74	+ 55
891	ι Andr	− 65	+ 56
892	ι Pisc	− 32	+ 60
893	γ Ceph	−222	− 2
894	ω^2 Aqar	− 36	− 3
895	41 H. Ceph	− 97	+ 12
896	δ Scul	+ 21	+ 45
897	268 G. Aqar	− 4	− 34
898	φ Pegs	− 33	+ 59
899	ρ Cass	− 59	+ 17
900	27 Pisc	− 8	+ 17
901	π Phoe	+147	+139
902	ω Pisc	− 36	+ 10
903	ε Tucn	+132	+ 80
904	ϑ Octn	+344	+ 68
905	2 Ceti	− 9	+ 25

Nördliche Polsterne

Nr.	Name im FK3	1939.5 Δα $(0^s.001)$	1939.5 Δδ $(0''.01)$
Na	43 H. Ceph	+ 4	− 21
Nb	α UMin	+ 820	− 17
Nc	Grb 750 Ceph	+ 60	− 14
Nd	51 H. Ceph	+ 325	+ 9
Ne	1 H. Drac	− 54	+ 18
Nf	30 H. Caml	+ 78	− 43
Ng	ε UMin	− 155	− 18
Nh	δ UMin	− 238	− 14
Ni	λ UMin	−1111	− 7
Nk	76 Drac	− 252	− 4

Südliche Polsterne

Nr.	Name im FK3	1939.5 Δα $(0^s.001)$	1939.5 Δδ $(0''.01)$
Sa	4 G. Octn	+ 396	− 63
Sb	ξ Mens	+ 47	− 43
Sc	ζ Octn	− 163	− 96
Sd	ι Octn	+ 322	+ 5
Se	20 G. Octn	+ 320	+ 17
Sf	26 G. Octn	+ 317	+ 23
Sg	χ Octn	+ 199	+ 1
Sh	σ Octn	+1967	− 46
Si	β Octn	+ 178	+ 39
Sk	τ Octn	+ 616	− 32

Komponenten der Doppelsterne

Die Reduktionen sind im Sinne Komponente minus Schwerpunkt gegeben.

Nr.	Name	1939.0 Δα	1939.0 Δδ	1940.0 Δα	1940.0 Δδ
257	α CMaj . Hauptstern	$-0^s.021$	$-1''.43$	$-0^s.002$	$-1''.21$
287	α Gemi B .	−0.044	−1.63	−0.039	−1.57
	α Gemi A .	+0.032	+1.18	+0.028	+1.14
291	α CMin . Hauptstern	+0.041	−0.99	+0.034	−1.08
538	α Cent B . .	−0.145	+2.38	−0.106	+2.81
	α Cent A . .	+0.124	−2.03	+0.091	−2.38

Alphabetisches Sachregister

Seite